

## Appendix L



USFWS

*Environmental education program*

## Summary and Response of Public Comments

- Habitat Management
- Wildlife Management
- Public Use Management
- Administrative/Planning/General Management

## Habitat Management

**Comment:** There was a range of comments received about the management of the Maquam Bog. Several commenters expressed the opinions that the bog needs to be burned to maintain its natural ecology, others advised that we establish a plan to protect the hardwood islands from fire, others opposed prescribed fire because it releases mercury and fine particulate matter which presents human health issues, and one person admonished that if we don't burn it someone will burn it for us.

**Response:** Objective 1.7 on page 2-39 of the draft CCP/EA states that the refuge will maintain the ecological integrity of Maquam Bog in order to protect populations of pitch pine, rhodora, and the state-threatened Virginia chain fern. As outlined in the draft CCP/EA, within 5 years, the refuge will develop a management plan (including: designation, use restrictions, management objectives, a summary of known information, and protection objectives and strategies including prescribed fire) for Maquam Bog. Within the next 5 years, the refuge also intends to monitor for the presence of non-native invasive species and implement appropriate control measures. As explained in the draft CCP/EA, within the next 5 to 10 years, the refuge will identify research partnerships to study the surface topography, hydrology, and fire history of Maquam Bog to guide management decisions that are appropriate for this unique ecosystem.

**Comment:** Clean up the trees from the river and dredge the mouth—this used to be done on a regular basis. Trees are a safety hazard and improved flow may help with the algae problem and get rid of some of the phosphorous.

**Response:** Objective 1.4 on page 2-33 of the draft CCP/EA states that the refuge will, “maintain more than 12 miles of natural riparian vegetation on both banks of the Missisquoi River and tributary creeks within the refuge and, with partners, protect an additional 5 miles of riparian corridor to enhance water quality by preventing phosphorous loading and sediment and nutrient runoff.”

Tree removal from the mouth of the river has not been done by the refuge since before 1999, at least. The Missisquoi Refuge is an important basking and feeding area for state-threatened Eastern spiny softshell turtles. They and other species of turtles use exposed logs, rocks, and banks along the Missisquoi River, Dead Creek, and the Cranberry Dike borrow ditch as basking sites. These sites are important to turtles and provide them with places where they can easily get into the sun, yet quickly escape into the water for survival. This basking is critical to egg development in the females. Trees and logs also serve as perching and resting spots for many species of birds. Though trees and logs in the water may be a safety concern to boaters, tree removal will not be done by Missisquoi National Wildlife Refuge unless it serves to benefit refuge wildlife. Trees and logs in the water of the Missisquoi River and Dead Creek are well-known phenomena. Most boaters expect there to be logs in the river and maintain a proper lookout and speed as required of any boat operator. Particularly dangerous logs that may not even protrude above the surface of the water may be marked with a line and floating buoy. Boaters frequently mark them in this manner if they feel they are dangerous.

As stated on page 1-23 of the draft CCP/EA, the Service does not have regulatory nor jurisdictional authority over dredging the mouth of the Missisquoi River. Dredging the river would require coordinating a study of the feasibility, environmental impacts, and wetland permit requirements by at least these agencies: the U.S. Army Corps of Engineers (which has primary jurisdiction in such matters), the U.S. Coast Guard (which has jurisdiction on this navigable portion of the river), the U.S. Environmental Protection Agency, the Vermont Agency of Natural Resources, as well as the U.S. Fish and Wildlife Service.

The Missisquoi River and tributaries of Lake Champlain host a unique assemblage of aquatic species often found nowhere else in Vermont. Freshwater mussels, one of the most greatly endangered groups in North America, are recorded in the lower Missisquoi River, including seven species that are regionally rare and listed as endangered or threatened in Vermont. In addition, the lower Missisquoi River is home to the state-listed threatened eastern sand darter and is one of the few remaining spawning grounds for the state-listed endangered lake sturgeon. Any alterations to the Missisquoi River would need to take the needs of these species into consideration.

The temporary and seasonal inconvenience to recreational boaters caused by the buildup of sedimentation will probably not justify measures that could have serious environmental impacts or be relatively short-lived, very expensive, and of doubtful effectiveness. Dredging the Missisquoi River is neither the desire nor the responsibility of the Service, but, if it were seriously proposed, the Service would play a key role in identifying and determining the perceived deleterious environmental impacts of such a proposal on refuge habitats and wildlife.

As stated on pages 2-34 through 2-37 of the draft CCP/EA, phosphorus is the nutrient that poses the greatest threat to water quality in Lake Champlain. The Missisquoi Refuge will contribute to phosphorus reduction by continuing to protect and/or restore native riparian vegetation, one of the most effective ways to reduce phosphorus loading. In addition, the refuge engages in partnerships to enhance water quality through changes in land use in the Missisquoi River watershed and in the greater Champlain Basin.

**Comment:** We received a number of comments concerning water quality, siltation, riverbank erosion, and phosphorous loading of the river, Missisquoi Bay and Lake Champlain. Most want the refuge to play a role in improving water quality, help determine current conditions, identify sources, and help resolve the poor conditions.

**Response:** Objective 1.4 on page 2-33 and Objective 1.5 on page 2-35 of the draft CCP/EA address water quality in Missisquoi River and Bay and in Lake Champlain. In addition, Goal 6 on page 2-67 of the draft CCP/EA states that the refuge will foster cooperative partnerships and actions to promote fish and wildlife conservation in the Lake Champlain Basin and Missisquoi River watershed. Table 2.2 on page 2-79 of the draft CCP/EA states that the refuge will work with partners to identify high-priority areas in the watershed, utilize the collective knowledge of partners to identify land protection needs, and possibly develop a Conservation Proposal if analysis of lands along the shore of Lake Champlain and adjacent to the refuge determine the need for one.

**Comment:** One commenter suggested using the rip-rap to be removed from the causeway at the old bridge between West Swanton and Alburgh to line the Missisquoi riverbank between the old refuge HQ site and Mac's Bend Boat Launch.

**Response:** The Refuge has no plans to use rip-rap, from the existing causeway in West Swanton and Alburgh, to reinforce the banks of the Missisquoi River. Objective 1.4 on page 2-33 of the draft CCP/EA states that the refuge will, "maintain more than 12 miles of natural riparian vegetation on both banks of the Missisquoi River and tributary creeks within the refuge and, with partners, protect an additional 5 miles of riparian corridor to enhance water quality by preventing phosphorous loading and sediment and nutrient runoff." The Missisquoi Refuge is an important area for state-threatened spiny softshell turtles; they use exposed logs, rocks, and banks along the Missisquoi River, Dead Creek, and the Cranberry Dike borrow ditch, for basking and feeding.

**Comment:** Several comments were made relative to invasive species, including; control unidentified invasive species on Black Creek, monitor and aggressively control invasives, evaluate the potential to promote invasives through refuge early successional habitat management practices, and reduce hosts and exterminate invasive species as a top priority.

**Response:** The identification and removal of invasive species is one of the highest priorities at Missisquoi National Wildlife Refuge. Preventing new invasions is extremely important in maintaining biological diversity and native plant populations on the refuge. The Missisquoi Refuge staff is collaborating with several Federal, State, municipal, and nongovernmental partners to develop a network of interested members who will provide informational and educational materials and conduct strategic projects designed to curtail the advance of exotic invasive plant species on the refuge and in the rest of the Lake Champlain watershed.

Control of invasive species is mentioned throughout the Missisquoi National Wildlife Refuge draft CCP/EA. Strategies listed on pages 2-37 through 2-40 of the draft CCP/EA include: "...identify submerged aquatic vegetation restoration techniques, in addition to invasive species removal; inventory and map the distribution of existing invasive aquatic plants (e.g., water milfoil) among the native submerged aquatic vegetation; prevent establishment of water chestnut on the Missisquoi Bay and delta by annual monitoring of the shoreline of Missisquoi Bay in mid-summer using an airboat and engage volunteers to monitor other portions of the refuge not accessible by airboat and immediately remove any water chestnut plants that are found; work with partners to develop effective techniques to control invasive Eurasian water milfoil and implement milfoil controls; and monitor for presence of non-native invasive species in the bog and implement control measures as appropriate." In addition, the draft CCP/EA states that the refuge will maintain natural riparian vegetation on both banks of the Missisquoi River and tributary creeks, and will evaluate its role in monitoring invasive zebra mussels.

**Comment:** Commenters offered support for the concept of managing for biodiversity, rare, threatened, and endangered species, migratory birds, ecological integrity, wildlife-dependent recreation, and a well-functioning floodplain forest ecosystem.

**Response:** The fundamental mission of the National Wildlife Refuge System is wildlife conservation. The goals of the Refuge System are to:

- Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered
- Perpetuate migratory bird, inter-jurisdictional fish, and marine mammal populations
- Conserve a diversity of fish, wildlife, and plants
- Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems
- Foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public uses including hunting, fishing, wildlife observation and photography, and environmental education and interpretation.



**Comment:** One commenter observed that, “The Refuge is dying. It has to take care of itself because we aren’t doing anything out there.” He further advised that all the wild rice is dying and we need to plant it where it will grow in a high water year. We need to keep records of water levels and determine what level is too high for wild rice, just right, etc. because nobody seems to know. We need to bring in wild rice roots from Rock River like they used to.

**Response:** We disagree strongly with your comment. The data show that the Missisquoi National Wildlife Refuge is a thriving natural environment that this year supports: the largest great blue heron rookery in the state of Vermont; nesting populations of wood duck, common goldeneye, hooded merganser, and mallards; more than 43 nests for the once state-endangered osprey; a floodplain forest containing breeding migratory songbirds of conservation concern; thousands of migrating waterfowl during the fall; the entire breeding population of the state-endangered black tern; a diverse assemblage of regionally rare mussel species; important basking and feeding areas for the state-threatened spiny softshell turtle; spawning grounds for numerous species of fish; habitat for American woodcock; the state’s largest populations of rhodora as well as pitch pine and the state-threatened Virginia chain fern; and priority grassland bird species such as bobolink, savannah sparrow, and eastern meadowlark.

Refuge staff work hard to maintain quality habitats on the Missisquoi National Wildlife Refuge. Some examples include: More than 1,000 acres of mature silver maple-sensitive fern floodplain forest is maintained by allowing natural processes to continue and by controlling non-native invasive species. Sixty acres of red maple-green ash swamp is maintained (through cuttings by a hydro-axe) as early-successional habitat to provide singing, nesting, and foraging habitat for American woodcock. The refuge hays and/or mows a dozen fields to provide grassland habitat for populations of grassland birds that are declining nationwide.

Three impoundments on the refuge form 865 acres of managed wetlands. Big Marsh Slough, Goose Bay Pool, and Cranberry Pool impoundments were completed by 1969 to provide nesting, foraging, and migrating habitat for waterfowl. They are a mix of open water and emergent vegetation composed primarily of wild rice, buttonbush, and tussock sedge. The refuge manipulates the water levels in the impoundments, where possible, to encourage the growth of waterfowl food and cover plants such as wild rice, buttonbush, smartweed, pondweed, and on and on. As has been proven this year with the reappearance of an excellent crop of wild rice, wild rice seed will lie dormant in the soil of our impoundments through several years of high water and will then germinate when the water level returns to a normal level once again. Planting wild rice on higher ground to provide a crop in high water years is unlikely to be a viable plan. Wild rice has specific site and growing requirements that would not be met in higher locations, which is why it is not there already. One important consideration is that the seed will not germinate unless conditions are correct, it will lie dormant as indicated above for a number of years but eventually, if growing conditions are not met, those seeds in that seed bank will die and will not germinate when conditions are right. It is better in high water years to let the rice do what it will and be happy with the knowledge that the waterfowl will utilize other wildlife food plants such as smartweed, pondweed, buttonbush, and sedges.

These refuge lakeshore wetlands are important staging areas for thousands of waterfowl during fall migration. As many as 10,000 mallards and 5,000 black ducks migrate through the refuge during the fall. During some years, 500 to 1,000 American widgeons congregate on the refuge. Migrant waterfowl numbers depend somewhat on seasonal water levels. During some years, water levels remain high in Lake Champlain, causing the water level in our refuge impoundments to be high as well. High water levels are not conducive to growth

of some plant species such as wild rice; therefore, during these years, refuge habitats do not produce the quantity or quality of plant food most desired for migrating ducks. We can not lower water levels in managed areas beyond the Lake level, it is a physical impossibility. While it could be argued that we could pump water out of the impoundments to make them lower than the Lake level, it is also a fact that our dikes are not entirely impervious to water. Trying to pump water out of the impoundment to maintain a water level which is lower than the lake would be ineffective and a waste of effort and money.

In the draft CCP/EA, Objective 1.3 on page 2-29 states that the refuge wants to maintain the current mosaic of wild rice, sedge meadow, and buttonbush swamp in the managed wetland areas to provide foraging and resting habitat for migratory waterfowl. Strategies on page 2-32 of the draft CCP/EA include, “conducting an ecological study in the impoundments to assess the quantity and quality of food resources for nesting and foraging waterfowl and marsh birds to guide future impoundment management to sustain quality habitat” and, “evaluate the potential benefits of extending the existing 97- to 98-ft msl low-level dike approximately half a mile from Goose Bay through Big Marsh to improve water-holding capability, maintain the mosaic of wild rice, buttonbush, and sedge meadow, and retard the intrusion of woody vegetation.” Strategies outlined on pages 2-37 and 2-38 of the draft CCP/EA indicate that within 5 years, the refuge will inventory and map the distribution and species composition of native submerged aquatic vegetation and evaluate the need for restoration.

**Comment:** Look at old aerial photos to determine where work is needed to bring habitat back for waterfowl nesting, resting, and breeding.

**Response:** The lakeshore wetlands in and around Metcalfe and Shad Islands, Cabot-Clark Marsh, Long Marsh Channel, Saxs Creek, Goose Bay, and Gander Bay are composed of wild rice marsh, sedge meadow, buttonbush swamp, deep broadleaf marsh, and bulrush marsh. The rivershore wetlands encompass the sedge meadow natural community along Charcoal and Dead Creeks. The lakeshore wetlands are an important staging area for thousands of migrating waterfowl during the fall and are important breeding habitat for mallards. In order to maintain high quality habitat for refuge species including waterfowl, the refuge (as indicated on page 2-29 of the draft CCP/EA) will, “collaborate with researchers to evaluate historical and current data (e.g. aerial photos, archaeological reports) on rates of sedimentation and changes in open water vegetation in lakeshore and rivershore wetlands. The Missisquoi River delta is naturally a very dynamic ecosystem, and changes constantly. Something would be wrong if it didn’t change, it is supposed to change. To try to return it to what it might have been, even as recently as several decades, ago would be nonproductive. Rather, we anticipate that management prescriptions will be based on the habitat as it has developed and evolved over the decades since refuge establishment, and we will manage it as efficiently and effectively as possible for wildlife.

The Service-Preferred Alternative B in the draft CCP/EA indicates that the refuge will work with the University of Vermont, the Natural Resources Conservation Service, and others to compile a comprehensive GIS-based database for the Missisquoi River watershed to identify topographic features, land uses, and habitat types to be used for long-term planning and the monitoring of refuge resources. In addition, it is stated that the refuge will evaluate all of its data from completed baseline of birds and other species to determine what additional surveys are needed to address management questions.

**Comment:** Maintain appropriate breeding habitat for grassland birds where suitable, and monitor before making the final decision to covert grasslands to shrublands.

**Response:** As stated in the draft CCP/EA, the Missisquoi National Wildlife Refuge will maintain 338 acres of grasslands to benefit nesting birds. On page 2-73 of the draft CCP/EA, it is stated that the refuge will, “conduct a breeding marsh bird, waterfowl, and harrier survey of the southern 57 acres of field 4 and the 10 acres of field 5 before changing the management objective from grassland to shrubland.” On that same page, it is stated that the refuge will, “establish species monitoring transects in the fields (1, 2, 3, 5, 6, 7, and 43 acres of Field 4) that are allowed to revert to shrubland to determine wildlife use and evaluate whether to allow succession to floodplain forest to continue. In addition, the Missisquoi National Wildlife Refuge will pursue opportunities to conserve additional grassland habitat in order to maintain landscape conditions that are conducive to sensitive species.

**Comment:** In regard to sediment loading of Goose Bay, look into options for sediment retention strategies in both Dead Creek and the Missisquoi, as well as options to “re-direct” the primary outlet of the Missisquoi back to the main stem as was the case prior to the 1927 flood.

**Response:** The draft CCP/EA indicates that landscape-scale conservation efforts need to be done by the refuge and various partners in order to address water quality issues such as sedimentation. On page 2-79 of the draft CCP/EA, the Service-Preferred Alternative indicates that the refuge will, “work with partners (Missisquoi River Basin Association, Friends of Missisquoi Bay, and others) and the Missisquoi River Watershed Planning Initiative to identify specific areas in the watershed that contribute heavy sediment and phosphorus loads and work to reduce sedimentation and phosphorus loading into Missisquoi Bay.” In addition, strategies on page 2-69 of the draft CCP/EA include, “evaluating historical and current data on the rates of sedimentation and changes in open water-vegetation in lakeshore and rivershore wetlands” and, “determining a threshold for management actions within lakeshore and rivershore wetlands based on historical, current, and projected habitat changes and rates of sedimentation.”

Redirecting the primary outlet of the Missisquoi River back to the main stem is beyond the scope of the Missisquoi National Wildlife Refuge draft CCP/EA. It would require coordinating a study of feasibility, environmental impacts, and wetland permit requirements by agencies such as the Army Corps of Engineers (which has primary jurisdiction in such matters), the U.S. Coast Guard (which has jurisdiction on the navigable portion of the river), the U.S. Environmental Protection Agency, the Vermont Agency of Natural Resources, and the U.S. Fish and Wildlife Service.

**Comment:** Several comments were received advising us to replant wild rice and expand to new areas. One commenter felt it very important to expand and enhance the existing food supply to hold ducks and geese longer. That commenter thought that waterfowl does not seem to be as dependent on refuge feed and area corn fields as they used to be.

**Response:** Three impoundments on the refuge form 865 acres of managed wetlands. We completed these impoundments—Big Marsh Slough, Goose Bay Pool, and Cranberry Pool—by 1969 to provide nesting, foraging, and migrating habitat for waterfowl. Those pools are a mix of open water and emergent vegetation composed primarily of wild rice, buttonbush, and tussock sedge. We manipulate the water levels in the impoundments, where possible, to encourage the growth of waterfowl food and cover plants such as wild rice and buttonbush. During some years, water levels remain high in Lake Champlain, causing the water level in our refuge impoundments to be high as well. High water levels are not conducive to plant growth, therefore, during these years, refuge habitats do not produce the quantity or quality of plant food desirable for migrating ducks.

In the draft CCP/EA, Objective 1.3 on page 2-29 states that the refuge wants to maintain the current mosaic of wild rice, sedge meadow, and buttonbush swamp in the managed wetland areas to provide foraging and resting habitat for migratory waterfowl. Strategies on page 2-32 of the draft CCP/EA include, “conducting an ecological study in the impoundments to assess the quantity and quality of food resources for nesting and foraging waterfowl and marsh birds to guide future impoundment management to sustain quality habitat” and, “evaluate the potential benefits of extending the existing 97- to 98-ft msl low-level dike approximately half a mile from Goose Bay through Big Marsh to improve water-holding capability, maintain the mosaic of wild rice, buttonbush, and sedge meadow, and retard the intrusion of woody vegetation.” Strategies outlined on pages 2-37 and 2-38 of the draft CCP/EA indicate that within 5 years, the refuge will inventory and map the distribution and species composition of native submerged aquatic vegetation and evaluate the need for restoration.

**Comment:** Get agribusiness out of the refuge, a refuge should not be used as a farm.

**Response:** The only agricultural practice that is done on Missisquoi National Wildlife Refuge is haying. Haying is done through a Special Use Permit given to local farmers that pay a fee. Haying is an essential tool in the management of grassland habitats for grassland nesting birds. Currently, the refuge manages a dozen fields that vary in their physical and ecological characteristics to benefit grassland-dependent wildlife like the bobolink, eastern meadowlark, and Savannah sparrow; all priority resources of concern in the State of Vermont. Grassland nesting birds are highly sensitive species whose populations are decreasing nationwide. Haying fields is a successful management technique for providing quality grassland habitats for these species while preventing woody plant succession and preventing the presence of unwanted invasive species. All haying at the refuge is done for the purpose of managing the habitat, it is not done for the purpose of collecting revenues.

**Comment:** One commenter advised that we need to repair the dike at Goose Bay Pool. He further advised that the way we built it was foolish and a waste of money.

**Response:** Page 2-32 of the draft CCP/EA states that the refuge will, “evaluate the potential benefits of extending the existing 97- to 98-ft msl low-level dike approximately half a mile from Goose Bay through Big Marsh to improve water-holding capability, maintain the mosaic of wild rice, buttonbush, and sedge meadow, and retard the intrusion of woody vegetation.” It also states that dike enhancement will be done if it is deemed beneficial for refuge wildlife resources.

The dike at Goose Bay Pool was built in 1958. Like the one at Cranberry Pool, it was constructed at an elevation of 103.00 ft. above msl, separating Goose Bay Pool from Goose Bay, an important, productive inlet of the much larger Missisquoi Bay. The dike had begun to deteriorate, gradually eroding to the point that no vehicles of any kind could drive along the top. This limited our ability to maintain the dike with mowers and tractors. An imminent risk of floodwater breaching the dike was apparent in 2001. The refuge issued a renovation contract that year to lower the dike to an elevation of 99.00 msl. The project included placing concrete revetment mats on the Lake Champlain side of the dike to reduce wind-driven wave action against its new slopes. The very gradual slopes on the inside were designed to maximize vegetative response (seed catch) and create a thick protective growth of grasses and forbs. The renovated low-level dike creates a small, but productive, managed wetland that will hold water much longer, providing excellent habitat for many wildlife species. This design has been used successfully in many other areas. It was designed for Missisquoi through our partnership with Ducks Unlimited. We feel the design is sound, but difficult



environmental conditions during rehabilitation limited the establishment of the thick grassy vegetation needed to stabilize the dike slope. We have not had good field conditions to effectuate the repair since the damage was incurred. It is a high priority for us to accomplish this project when conditions permit and we can be more confident that cover vegetation will become well established.

The dikes at the refuge allow the normal annual spring flood level of the river to inundate the managed marshes. That annual event provides an opportunity for the water exchange and nutrient replenishment that occurs throughout the floodplain delta each spring. In many ways, the natural hydrology of the delta is proceeding uninterrupted as water overtops low-level dikes in Goose Bay Pool and Big Marsh Slough or freely enters Cranberry Pool from the Missisquoi River. The dynamics of the managed marshes and their relationship to adjacent, unmanaged delta marshes creates a mosaic of water levels and vegetative habitats that serves the needs of many wildlife species. Future projects will strive to incorporate low-level dikes and water control structures that will continue to provide for natural movement of water.

**Comment:** One commenter recommended that an effort to inventory, monitor, protect, and enhance habitat for refuge species be outlined in the CCP.

**Response:** Once the Missisquoi National Wildlife Refuge CCP is finalized, a step-down Habitat Management Plan will be written by the refuge biological staff. It will include specific information regarding monitoring, protecting, and enhancing habitats and wildlife on the Missisquoi National Wildlife Refuge.

## Wildlife Management

**Comment:** On the issue of water quality, fingers are usually pointed at the farmers as being the main contributor's of phosphorus in the lake. What would be the phosphorus contribution from a flock of 2000 snow geese in the middle of the bay?

**Response:** Water quality and its impacts on wildlife and habitats are of paramount importance to the Missisquoi NWR. Thousands of migratory birds, especially waterfowl, migrate through the refuge each spring and fall. Migratory birds concentrate on area waters, fields, grasslands and haylands for varying periods of time (usually late March to early May and again in the fall from early October through late November). There is little doubt that wildlife, including concentrations of migratory birds, contribute to the nutrient loads including phosphorus, in areas where they congregate. It is likely that concentrations of waterfowl have been using the food rich Missisquoi Delta for thousands, and perhaps tens of thousands of years. We do not however, have any information to help us see what the conditions of Lake Champlain or the Missisquoi Delta were in the distant past. Were algae blooms, sediment-laden water, nutrient rich water columns and bottom sediment a part of the distant past, or are the problems present in the local rivers and Missisquoi Bay a more recent development as humans have changed the landscape? There is plenty of anecdotal information from area residents that point to rather recent developments, be they agriculture, residential and commercial developments, or others as significant accelerators of the nutrient loading and eutrophication process in Lake Champlain.

Working in concert with the academic community, Vermont Department of Agriculture, Natural Resource Conservation Service, and others, a comprehensive and current analysis of the nutrient contribution by waterfowl may be possible.

**Comment:** The MAPS (Monitoring Avian Productivity and Survival) program on the refuge has been stuck. What are we going to do about this? This research is important and the Refuge is not doing it.

**Response:** The MAPS (Monitoring Avian Productivity and Survival) program began on the refuge in 2001 as a cooperative endeavor with Audubon Vermont to monitor species changes relative to habitat treatments that were prescribed at the Stephen J. Young Marsh hardwood stands. The refuge was engaged at that time, as it is today, with restoring and managing small parcels of hardwoods in early successional habitat, primarily for American woodcock, but also for migrant passerines that use early successional habitats. The MAPS program on the refuge used 10 mist nets to capture small songbirds. Information was recorded on all species captured; the birds were banded and released. The data recorded provides information on species using the habitat, number of adults and young, number of birds returning each year as well as other productivity and survivorship information.

The MAPS program was also a valuable environmental education tool, providing “up close” and in some cases hands on opportunities for visitors to experience songbirds.

The lead responsibility for the MAPS operation rested with Audubon Vermont. In 2005, significant funding, staffing, and focus changes were implemented at Audubon both at the national and local levels. These changes resulted in the loss of the 2-3 trained Audubon personnel required to operate the MAPS station at the refuge. The Refuge Manager determined that training and obligating 2-3 refuge staff to offset the loss of the Audubon personnel was not a priority and therefore discontinued the program. As stated in the CCP, we will evaluate the MAPS program and data to determine its value to guiding management decisions and to refuge interpretive programs. If it is not providing valuable data, data that is useful to refuge managers for making habitat management decisions, and is not a high priority deserving refuge staff commitment, we will discontinue it. We will not use the program solely for its recreational and educational value.

It is likely that continuation of the MAPS program can only occur if appropriate funding is restored and a renewed partnership with Audubon or another cooperator were developed.

**Comment:** Work on nesting boxes for any and all nesting birds using scout groups and other interested parties. Providing nesting habitat for migratory birds was the initial purpose for the establishment of this refuge.

**Response:** Our expectation is that habitat management that has been developed in the CCP, and subsequently in the step-down Habitat Management Plan will provide adequate habitat for most species of wildlife that use the refuge for nesting and brood rearing. This includes cavity nesting species who traditionally have used artificial nesting boxes on the Refuge.

Existing mature floodplain forests provide a variety of tree species such as silver and red maple, swamp white oak, and cottonwood that naturally develop cavities used by a variety of birds and other wildlife species. Likewise, grasslands, wetlands, and some of the hardwood forest habitat is managed to provide nesting and brood rearing habitats.

A research opportunity does exist to record and document wildlife use of naturally occurring tree cavities. Part of our plan to evaluate the wood duck nesting box program is to determine whether adequate natural cavities exist on the Missisquoi delta.

If our evaluation determines that there is a management need to continue with the program we will try to develop partnerships with scouts, volunteers, Friends, and other interested parties to do so.

It should also be noted that while management of the refuge to provide nesting habitat for migratory birds was indeed part of the purpose for the establishment of the refuge, the greater natural value and use of the refuge was as migratory feeding and resting habitat for waterfowl using the Lake Champlain branch of the Atlantic Flyway in the spring and fall; a migration stopover. The wood duck nesting box program was implemented to contribute to the flyway-wide effort to increase wood duck populations in the middle of the 20th Century, but may no longer be necessary if natural cavities have redeveloped with the aging of the forests. Additionally, wood ducks have rebounded to a healthy population level. In general, it is our policy to provide artificial nesting structures, be they for waterfowl, endangered species such as ospreys and bald eagles (in the past), or another priority wildlife species, when it has been determined by wildlife biologists that nesting habitat is a limiting factor to the sustainability or recovery of a population. Once the population has recovered or met management objectives, or if nesting habitat is no longer the limiting factor, the use of artificial nesting would be discontinued.

**Comment:** Go all out to see that nuisance species like the double crested cormorants and sea lamprey are not allowed on or are at least controlled on the refuge.

**Response:** The Refuge will continue to observe and record the activities of double crested cormorants throughout the Refuge. Of particular interest will be nesting attempts in and around the great blue heron rookery on Shad and Metcalfe Islands. Working in concert with researchers at UVM, the USDA–Wildlife Services, and the Vermont Fish and Wildlife Department, the Refuge will develop management options to insure that diversity of species is maintained and habitat destruction is minimized relative to cormorant activities.

Sea lamprey activities are not specifically monitored by the Refuge. Monitoring, and if necessary, treatment of sea lamprey is often conducted by the Vermont Fish and Wildlife Department in conjunction with the U.S. Fish and Wildlife Service's Lake Champlain Fish and Wildlife Management Office in Essex Junction, Vermont. Where opportunities exist, the Refuge will partner and assist with monitoring and control activities.

**Comment:** Construct nesting platforms for black ducks above the high water level including predator guards.

**Response:** Nesting platforms have a long but generally unsuccessful history at the refuge. Mallard and black duck nest baskets, set in the crotches of a variety of trees at a height of 3-4 feet above the ground, were attempted in the late 50's and 60's, with some initial success. However, as soon as raccoons discovered these readily available food sources, nesting success began to decline significantly. Nesting baskets constructed of rolled 2" x 4" wire with rolled indoor/outdoor carpeting inside and set on a 5-6 foot predator guarded steel pole were attempted in the 1980's. Again, these artificial structures were only marginally successful, even though they were installed in a variety of habitats. To date, we have not determined a nesting structure design that was worth pursuing.

**Comment:** Numerous commenters were opposed to our plans for the wood duck nesting box program as stated by one commenter—I can't believe you are eliminating the wood duck box program. You should continue this program which has shown good results, and which should not be discontinued arbitrarily. What was the basis for the elimination of this program? Was a biological study conducted?

**Response:** Numerous commenters appear to have jumped to the conclusion that we are eliminating the wood duck box program. What we state as our proposed

action in the draft CCP/EA is to evaluate the artificial wood duck nest box program to determine if natural structures meet management objectives. It is our policy that we do not furnish artificial structures unless natural structures are insufficient to support the population. Therefore, if natural structures are sufficient, we will discontinue or reduce the wood duck box program, but we first need to determine the availability and suitability of natural cavities.

**Background information**—In the 1940's and 1950's when the use of artificial nesting structures for wildlife began in earnest, it was done because the wood duck population had been over-harvested and its natural mature forest habitat had been cut. Now, some 50-60 years later, the population has recovered due to proper management and harvest regulations, and the natural cavities required by the species have developed once again, especially at Missisquoi with its mature silver maple floodplain forest. If we decide to continue the program because natural cavities are either insufficient in number or are susceptible to unacceptably high levels of predation, we will make an effort to ensure the nesting box program is managed as effectively and efficiently as possible. In the recent past, some of our boxes have proven to be detrimental to the efforts of cavity nesting ducks. Poorly maintained predator guards and boxes and poorly placed boxes can lead to significant predation on both eggs and nesting females, can encourage “dump nesting” where more than one female lays a clutch of eggs in a single box which usually results in failure of eggs on the bottom of the clutch to incubate and hatch properly, or can just be unused and a waste of time and effort. While some levels of predation, dump nesting, and disuse are normal and expected, without considerable effort, time, and diligence the level can quickly become excessive and reach a point where the birds are better off without artificial boxes and have a better chance of being successful using natural cavities. In the last decade or so, the fisher population on the refuge has grown and fishers have become a significant factor in nest box predation. Fishers appear to be a far more significant threat to birds using these boxes than raccoons or any other predator. It is vastly more difficult to protect a box via a predator guard that will confound a fisher as opposed to a raccoon, and fishers appear to be much more adept at chewing and enlarging the opening in the box to gain entrance to the female and/or the eggs.

Ideally and normally, we need a couple weeks when the ice conditions of the lake, river, and backwaters of the refuge are frozen solid and safe in order to complete the box maintenance. In recent years, we've come up short on those conditions.

**Comment:** On page 2-24 of the draft CCP/EA, relative to wood ducks, you state that “rebounding beaver populations and the increasing availability of mature cavity trees, in addition to artificial nest boxes, have bolstered that population growth.” Explain how rebounding beaver populations are related to cavities.

**Response:** The wood duck is especially associated with beaver ponds and often increases in numbers when beaver expand their populations and build more dams. For example, in Bear Mountain State Park, New York, the wood duck was virtually unknown as a breeder in 1920. Over the next twenty years, however, beavers invaded the park and the wood duck followed this “nature’s engineer.” By 1940, almost every beaver pond in the park had a pair of nesting wood ducks (Carr 1940). Other studies confirm these observations. In forested areas of southern Ontario, wood ducks preferred beaver ponds to all other wetland habitats (Merendino et al. 1995). However, new active beaver ponds are preferred to older ones (Brown and Parsons 1979). In the Appalachian Plateau region of South-central New York, for example, wood ducks were found at 52% of active beaver ponds, 21% of abandoned beaver ponds, and at 0% of wetlands with no recent record of beaver occupation but which “contained appropriate cover types and topographical features suitable for beaver” (Grover and



Baldassarre 1995). Nevers (1968) suggested that the recovery of the entire US wood duck population from very low numbers in the early Twentieth Century, was due to the recovery of the North American beaver population and the resulting increase in the number of beaver ponds. Also in the Appalachian Plateau region of New York, Hooded Mergansers (*Lophodytes cucullatus*) were found more often at active beaver ponds than at inactive beaver ponds or at the wetlands with no recent record of beaver occupation (Grover and Baldassarre 1995).

Beaver ponds and associated wetlands often flood living trees which die due to the raised water table. In a surprisingly short time these trees deteriorate to the extent that they can provide nesting cavities for wood ducks. Woodpeckers often facilitate this by excavating the dead and dying wood in search of insects attracted to the decaying timber.

**Comment:** We support the commitment to control Mute Swans per State policy.

**Response:** Thank you, we appreciate your support and are committed to controlling mute swans on the refuge. Fortunately, it has been about 5 years since we've seen any here.

**Comment:** We agree with Capen and Richards that it is inadvisable to control cormorants on Shad and Metcalfe Islands due to the likelihood of disturbance to nesting Great Blue Herons.

**Response:** We will continue to monitor the nesting activity of herons and cormorants on the refuge and will be watching for negative impacts of cormorants on the habitat. We will also, with the assistance of our partners on the Lake Champlain Fish & Wildlife Management Cooperative's Wildlife Technical Committee and the Lake Champlain Cormorant Communications Committee, assess the need to control cormorants at the refuge if we determine that cormorants are starting to impact the habitat. It is likely that we will develop a threshold for action. Then, if a decision to take control action is made, we will seek to do so in a way that will allow us to achieve the objective with no or minimal negative impact on nesting herons. We may need to take such action in order to achieve our CCP Goal #1. to "maintain the ecological integrity of the Missisquoi River delta to ensure a healthy and diverse river ecosystem providing a full range of natural processes, community types, and native floral and faunal diversity." We do not want to disrupt the heron rookery in our efforts to control cormorants, nor do we want to jeopardize the heron rookery because of the cormorants impact on the habitat. There is likely a fine line between the two. Ideally, control of cormorants will not be necessary but it is prudent that we prepare to manage them on the refuge if necessary.

**Comment:** The CCP should include a management plan that details strong protections for all listed and imperiled species on the refuge.

**Response:** Page 1-15 of the draft CCP/EA discusses and lists "Step-Down Management Plans." These are the detailed plans that will result in strong protections for imperiled species on the refuge as we develop habitat management plans and prescriptions that factor in management to benefit these species.

**Comment:** Stop the cormorant killing.

**Response:** We are not currently controlling cormorants, by either lethal or non-lethal means, on the refuge. Refer to our response above in the comment about controlling cormorants in the great blue heron rookery for more information.

## Public Use Management

**Comment:** The proposed \$1 fee for special Refuge activities was the most frequently addressed topic of the entire plan. Most comments were not supportive of the proposal, although several suggested that a higher fee would be more acceptable, while others recommended asking for donations instead of requiring a fee. Many commenters appeared to be ill-informed about the details of the fee, anticipating that all refuge visitors would be charged the fee for all uses and activities while being unaware that there would be many exceptions.

**Response:** Recreational uses require the maintenance, replacement, or repair of trails, observation platforms, parking areas, boat launches, gravel roads, directional, and interpretive or other signs, and printing brochures, trail guides, and maps. Annual visitation is expected to grow beyond its present level of 38,000 and, concurrently, requests for recreational services will increase. Fee revenue supports public use activities. The specifics of the fee program are discussed in the draft CCP/EA, Chapter 2, Alternative B, Refuge Activity, Hunting, and Special Use Fees, page 2-19. Based on the large number of comments received on this topic, the fee program will be revised and the refuge will continue to collect fees on a voluntary basis. We will expand and encourage voluntary participation by installing voluntary, self-service donation boxes at all trailheads and at the Louie's Landing Boat Launch and fishing area, and the Mac's Bend Boat Launch and fishing area. We will suggest a \$1.00 per person (per activity or per day) Refuge Activity Fee that will not be mandatory.

**Comment:** One commenter suggested trying to operate the classroom like a movie theater in a way. It was recommended that we secure really good popular and nature-oriented films for which viewers would pay a reasonable fee.

**Response:** We will explore this with the Friends of Missisquoi National Wildlife Refuge, Inc. whose mission is part is to organize fundraisers, possibly such as this, to generate funds in support of refuge visitor services programs.

**Comment:** People would be willing to pay more than \$1 for activities that build skills, such as photography, GPS use, woodcock management at home, etc.

**Response:** The refuge will consider hosting these suggested workshop topics and others as part of the refuge activity schedules; in fact, the last few schedules have included activities focusing on wildlife photography and GPS skills. According to the revised fee program, as noted in response to comment 25, visitors, who are willing to make financial contributions, will not be limited to \$1.00.

**Comment:** A commenter recommended that the media be constantly reminded that the refuge is here and is doing good things for the State.

**Response:** A strategy, currently in the draft CCP/EA, addresses this comment under Objective 3.2 Outreach on page 2-50.

**Comment:** A commenter recommended that we work with schools to remove the anti-hunter sentiment of the teachers.

**Response:** The refuge recognizes that environmental education is an important way to raise our visibility, convey our mission, and identify the significant contribution the refuge makes to wildlife conservation. Staff and refuge volunteers include a description of the refuge public use program, including the six wildlife-dependent public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation) identified in the Refuge Improvement Act, whenever presenting environmental education programs. Teachers and students, quite often, question the refuge hunting

program during these presentations, allowing the presenter to expand on the important role that hunting plays in wildlife conservation and management. “Missisquoi—A Haven for Wildlife,” a 20 minute DVD presentation shown at the Visitor Center, also emphasizes the refuge hunting program. The refuge will continue to make every effort to remove anti-hunter sentiment of all refuge visitors.

**Comment:** One commenter encouraged teacher use of the refuge for Environmental Education, perhaps hold a workshop for art and other teachers, principals, and school board members to educate them on the importance of the refuge and the programs of the refuge. Get them out here to assist with habitat work.

**Response:** The refuge conducted a “Teacher Orientation Tour” on August 15, 2007 for local educators to learn about environmental education programs and opportunities at the refuge. In addition, strategies in the draft CCP/EA, listed under objective 3.1, on pages 2-52 and 2-53 address this comment. Objective 3.1 and strategies under this objective will greatly improve our environmental education program and expand partnerships with schools, agencies, and organizations that are involved in environmental education in our area. However, these objectives and strategies can only be fully met with additional staffing to develop these programs and nurture their growth. The CCP calls for the hiring of a seasonal park ranger to further improve and increase community outreach, environmental education, interpretation, and volunteer utilization efforts.

**Comment:** One commenter suggested that we emphasize duck stamp purchases to all visitors and in all presentations, and that we should set up annual display at refuge headquarters. He feels that people should know that duck hunters bought this land with duck stamp money but that anybody can and everybody should buy a duck stamp for more land acquisition.

**Response:** In support of the National Duck Stamp Initiative, the refuge submitted a news release to the local media on June 19, 2007, encouraging the public to purchase Duck Stamps and support wetland conservation. The release noted that Federal Duck Stamp money purchased most of Missisquoi’s lands and an additional 156 acres will be purchased with Duck Stamp funds and added to the refuge in the near future. Missisquoi will continue to support this important initiative, will emphasize the duck stamp in all presentations, and will display duck stamp information at the Visitor Center.

**Comment:** On page 2-50 of the draft CCP/EA in the section on Rationale, you state “The Service is America’s voice for wildlife, speaking for the wild creatures that cannot speak for themselves.” I recommend you delete that sentence, ducks probably don’t want to be hunted.

**Response:** We understand your point, however, we were speaking metaphorically. Our point is simply that the Service has responsibility for stewardship of our nation’s wildlife and must act in the best interest of wildlife populations while trying to gain public understanding and support for doing so.

**Comment:** On page 2-51 of the draft CCP/EA you make the statement, “Develop public outreach with any nest box removal emphasizing the refuge focus on providing high-quality natural cavities for all cavity-nesting species on both private and public lands.” How are you going to provide high-quality natural cavities?

**Response:** Managers can enhance numbers of suitable cavities by allowing forests to mature, especially hardwoods near canopy openings. At Missisquoi,

therefore, we can simply protect the floodplain forest habitat on the refuge letting it mature naturally into an older growth type of forest. Cavities form naturally by disease or insect activity, the natural loss of branches, or are excavated by any of a number of forest-dwelling birds such as woodpeckers, sapsuckers, and flickers who excavate holes in trees while searching for food or creating nesting or roosting cavities for themselves. It is also believed by some managers and supported by some research, although results are highly variable depending on habitat types, wood duck nesting densities, and predator population densities, that natural tree cavities are less susceptible to predation possibly because they are more widely dispersed and well hidden than nest boxes. At sites where that is not the case, it is still the Service's policy to promote use of natural nesting sites versus artificial sites if the latter are not necessary to achieve population management goals.

Although wood duck populations have recovered, the largest threat to their future is the continued loss of habitat. By protecting and restoring floodplain forests, river oxbows and meanders, and other freshwater wetland and riparian habitats, the refuge and private landowners can assist in the continued success of populations of wood ducks and other migratory waterfowl species that rely on similar habitats.

**Comment:** On page 2-54 of the draft CCP/EA, under Rationale, you mention feeding of birds. I think it is important to note that feeding of birds is not condoned on the refuge.

**Response:** You are correct that we do not encourage artificial feeding of any wildlife on the refuge, and in most cases, off the refuge as well. Feeding birds at home bird feeders for family enjoyment and birdwatching purposes, however, is a widely accepted practice and is not discouraged unless it proves to be a significant factor affecting population ecology. In the context of our draft CCP, we are simply describing some of the ways in which people are participating in wildlife watching in Vermont.

**Comment:** One commenter feels that other recreational uses of the refuge are OK as long as they do not take away from waterfowl programs.

**Response:** In the Northeast Region of the U.S. Fish and Wildlife Service, hunting and fishing have been identified as priority Areas of Emphasis at Missisquoi National Wildlife Refuge. This designation allows us to focus our limited time and resources on the activities that will be best received, most successfully developed, and that will deliver the greatest results in terms of stewardship and support for the mission of the National Wildlife Refuge System. By focusing on these recreational uses, we can deliver activities that best support our most unique opportunities. These two recreational uses are emphasized and supported throughout the CCP in terms of the six wildlife-dependent, priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation) identified in the Refuge Improvement Act of 1997.

In the CCP, it is proposed that several new public use facilities will be constructed and other areas will be enhanced. A new 1 mile loop "Discovery Trail," through several different habitats, is currently being constructed at the headquarters site. At the end of Maquam Creek trail, an elevated boardwalk will be constructed. Along the Old Railroad Passage trail, a boardwalk will be constructed to reach Maquam Bay and an overlook will be constructed to view Maquam Bog. At each of these sites, interpretive signs will be installed. Finally, kiosks, housing refuge information and interpretive materials will be located at trailheads and headquarters to improve the visitor's experience. These



recreational uses will occur on the refuge in a manner that minimizes conflicts between user groups. Trail closures and advisories will be implemented as noted in the draft CCP/EA, under Objective 4.1, Strategies, page 2-55.

**Comment:** On page 2-56 of the draft CCP/EA you propose to “Shorten the Jeep Trail to end where the trail is close to the river (where the river branches).” Why?

**Response:** There are a couple reasons for proposing this. This is a relatively long trail as it is, approximately two miles from the Mac’s Bend Boat Launch to the proposed end point. That is not only a lot of trail for refuge staff to monitor and maintain in addition to the other trail opportunities provided on the refuge, but the entire trail needs improvement work to make it a safer walking surface for visitors. The trail, formerly a dirt road for tractors or 4-wheel drive vehicles deteriorates beyond that point. Finally, the trail beyond that point brings trail users into the vicinity of waterfowl hunters using Long Marsh Bay hunting sites which could have negative impacts on that activity.

**Comment:** Two commenters support the closure of the refuge to use by snowmobiles and ATV’s.

**Response:** Thank you for your support. Public use of snowmobiles and ATV’s is not allowed on Missisquoi National Wildlife Refuge.

**Comment:** Several commenters recommended restricting the use of motorized boats on the refuge, in terms of restoring wilderness values and reducing impacts to wildlife. One of those suggested, as an alternative to an outright ban, reducing speed limits to 5mph and implementing a no wake zone across the entire width and length of the river within the refuge. One commenter suggested that we are maintaining motor boat use on the Refuge against prevailing FWS policy.

**Response:** The ownership of Missisquoi River bottoms and our authority to regulate uses on the river is uncertain at this time and is identified as an issue for which we need to seek clear guidance. In the meantime, the regulations of the Service apply “to areas of land and water held by the United States in fee title and to property interest held in less than fee . . . to the extent that the property interest held by the United States may be affected.” (18 C.F.R.). Under Vermont law, a riparian landowner owns to the middle of the river, unless the deed of conveyance says otherwise. The Service, with the assistance of its Solicitors, intends to review the individual chains of title for the tracts making up the Refuge, the public right to navigation, and any other applicable rulings or authorities to clarify this issue.

**Comment:** One commenter recommends that we impose a prohibition on fishing derbies in the refuge and work with others to reduce the impact of fishing derbies on wildlife in the refuge.

**Response:** Fishing is a priority public use and area of emphasis on the refuge. Derby participants will be allowed to fish in areas open to fishing on the refuge. The refuge will continue to work with and partner with Vermont Fish and Wildlife Department to enforce fishing regulations and to reduce the impact fishermen have on the resource. Every effort will be made to make derby organizers aware of refuge rules and regulations.

**Comment:** A commenter recommends that we help protect and restore wilderness values on the refuge north of Route 78 by closing the road beyond Louie's Landing and allowing only non-motorized access beyond that point.

**Response:** We appreciate the commenter's support of wilderness areas and wilderness values. As evidenced by the Wilderness Review conducted as part of the development of this draft CCP/EA, we have considered the entire refuge for opportunities to establish Federally designated Wilderness Areas, and conclude that no portion of the refuge would be appropriate for wilderness designation. The Service, however, recognizes the unique and special qualities of the area, and agrees that management should focus as much as possible on providing characteristics associated with wilderness while still managing the area for the purposes of migratory birds and wildlife-oriented priority public uses. We believe we can provide and encourage, through careful management of our programs allowing public access to the refuge in this area and elsewhere, a sense and appreciation in our visitors that they are in a special place and are privileged to be there.

As stated elsewhere in this comments section and in the draft CCP/EA, we have considerable work to do to ascertain our authority on the Missisquoi River through the refuge and our authority to regulate uses thereon. We currently do not have an understanding that the Service can regulate uses on the river. If it is eventually determined that we have that authority, we will need to give considerable thought and seek wide public and partner involvement to determine our management actions.

Closing the road beyond Louie's Landing to motorized use would prevent our use of refuge facilities and management of refuge habitats already established along the 1-mile gravel road to Mac's Bend boat launch area and the Jeep Trail trailhead. We have had a storage building that is also used as an event headquarters for various public uses at the halfway point on this road since the early 50's. For management purposes, we need to continue to use motorized equipment on this roadway and beside the roadway as we manage the habitats in this area. This area was evaluated for further study for wilderness designation and did not meet criteria to do so. Our priorities for use of this area therefore continue to be for the purposes of providing, conserving, and managing habitat for migratory birds.

**Comment:** Three commenters asked for reconsideration of the dog-walking ban, recommending enforcement of the current regulation requiring that "dogs be leashed" and that violators be punished rather than instituting a "no dogs" policy. One of these commenters also stated that there is a difference between "taking the dog for a walk" and "taking a walk with the dog." All suggested that proper signage and enforcement should be used to fix the existing regulation, rather than implementing a prohibition.

**Response:** The Missisquoi National Wildlife Refuge was created "for use as an inviolate sanctuary, or any other management purposes, for migratory birds" under the Migratory Bird Conservation Act. The 1997 Refuge Improvement Act establishes the mission of the Refuge system as "to preserve a national network of lands and waters for the conservation and management of fish, wildlife, and plant resources of the United States for the benefit of present and future generations." The Refuge Improvement Act further stipulates that all activities occurring on refuges must be compatible with wildlife conservation and the specific purposes for which a refuge was established. This is an important distinction from other public lands and recreation areas; refuges have a narrow management focus

and are not multi-purpose lands. Six public uses were identified by the Refuge Improvement Act as the priorities for receiving enhanced consideration on refuges. Dog walking is not one of the six priority uses, nor are dogs (except hunting, seeing, or hearing dogs) necessary to support the safe, practical, and effective conduct of the priority public use programs on the refuge.

Dogs running off leash and dog waste left on trails are consistent problems, not isolated incidences. We receive complaints from visitors about unleashed dogs running up to them and their having to step around dog waste on trails. These visitors are intimidated by dogs and disgusted by the waste, and their experience is negatively impacted by these encounters. Many dog owners consistently remove their dogs from leashes when they are away from the parking lots and where they believe they are unlikely to be observed by a refuge staff member. We also have concerns with dogs, especially loose dogs, where visitors with impaired mobility would be encouraged to observe wildlife. Instinctively, dogs want to chase wildlife. Unleashed dogs chase nesting wildlife, which can result in destruction of ground nests and young. Dogs may step on nests or young chicks, as they “freeze” in response to danger. Wildlife can’t distinguish between dogs on leashes and unleashed dogs. In the presence of a dog, many species will abandon their nests or young, leaving them vulnerable to be killed by predators, or die from starvation or exposure. While we could lessen these impacts by constantly enforcing the use of leashes and requiring that dog waste be discarded off refuge lands, this would require us to dedicate considerable staff time to enforcing compliance of an activity that does not support one of our priority public uses. This additional expenditure of resources would negatively impact our ability to meet Refuge goals and objectives.

We realize that many dog owners are responsible owners and some have a strong emotional connection to the refuge and to walking their dog on the refuge. We realize that some people will not be happy with this decision. Nevertheless, we believe that the overall adverse impacts of dog walking on wildlife, the negative impacts on other visitors engaged in wildlife-dependent public use, and the cost in terms of refuge staff time that would be needed to police this use and bring it into compliance, justify this prohibition.

Our decision is also consistent with land managers throughout the State who manage lands specifically for wildlife. The Nature Conservancy of Vermont lands and State of Vermont Wildlife Management Area lands, including the Milton and Sandbar Wildlife Management Areas are not open to dog walking.

**Comment:** A commenter took exception to the statement on Page 2-59 that states, “The refuge is proposing a no-dog policy except for disabilities, emergencies, or as required by hunting regulations.” He suggested that we want to encourage the use of dogs on all waterfowl hunting areas.

**Response:** You are correct. We will change the statement to read, “The refuge is proposing a no-dog policy except for disabilities, emergencies, waterfowl hunting, and as appropriate for upland game hunting. We encourage the use of retrieving dogs for waterfowl hunting and require their use for hunting waterfowl in the following areas on the refuge: ...”

**Comment:** One commenter supports closing specific lands at key times to fully protect sensitive species.

**Response:** Strategies, currently in the draft CCP, addressing this comment can be found under Objective 1.1 on page 2-25, Objective 1.2 on page 2-28, and Objective 4.1, trail closures, on page 2-55.

**Comment:** All recreational activities should be managed with a cautioned, principled approach that prioritizes the ecological health of the Refuge; the CCP should state as much, in addition to outlining how priority public uses will factor into the management of the Refuge.

**Response:** A key strategy statement is included in the Highlights section of the draft CCP on page IV that addresses this, to wit: Other new critical positions, including a park ranger, maintenance worker, and biological technician, to maximize the use and effectiveness of the new visitor center and associated interpretive trails, ensure safe, quality refuge experiences through well-maintained facilities, ensure our use of the best available science in conserving and managing the fish and wildlife resources and their habitats, and ensure that public uses are compatible with the wildlife first mission of the Refuge System.

**Comment:** Goal 3 should include an emphasis on bi-lingual interpretive materials given the Refuge's location near the Quebec border.

**Response:** The refuge has an interpretive display which features a management video at the Visitor Center available for visitors to view in both English and French. A longer refuge orientation video is also available for visitors to view in both English and French languages. Several bi-lingual interpretive signs have been designed and funded in partnership with the Lake Champlain Committee and will be placed outside at the Visitor Center and at the Louie's Landing boat launch. In addition, the refuge will consider developing additional interpretive materials including brochures and trailhead signs in French as funding permits.

**Comment:** Re: Objective 4.4 work with the Lake Champlain Committee to establish day-use paddling sites at appropriate locations as part of the Lake Champlain Paddlers' Trail. Link plans to develop a brochure and access to the Lake Champlain Paddlers' Trail system.

**Response:** Since this trail passes through the refuge, we will consider establishing a day-use paddling site at an appropriate location. We are already working in partnership with the Lake Champlain Committee and the Northern Forest Canoe Trail to develop and place interpretive signs at the Louie's Landing Boat Launch and will consider expanding use of this area for paddlers. Users of the trail would then have access to refuge information and the opportunity to become well informed of refuge rules and regulations.

**Comment:** Objective 4.4—In regard to: provide educational brochures to boaters and anglers on how to minimize the impacts of boating on the environment. The Lake Champlain Committee has a bilingual manual for this purpose it will share.

**Response:** A request for a supply of the bilingual manual on how to minimize the impacts of boating on the environment has been made to the Lake Champlain Committee. If, after review of the manual, the refuge agrees with the educational message and feels that this will work for distribution to boaters and anglers on the refuge, we will partner with Lake Champlain Committee to make these available to those refuge visitors.

**Comment:** Objective 4.4—In regard to: develop canoe/kayak route brochure. The Lake Champlain Committee describes this in their annual guidebook and is willing to share with appropriate credit to the Lake Champlain Paddlers' Trail.

**Response:** The refuge will develop the canoe/kayak brochure, utilizing the information included in the Lake Champlain Paddlers' Trail guidebook. A detailed map of refuge waters will also be included in the brochure. Credit will be given to Lake Champlain Paddlers' Trail for their contribution.



**Comment:** One commenter expressed reservations about the proposal to permit the Friends to operate a non-motorized boat rental operation. They are also opposed to motor boat use on the river due to invasive species, noise and bank degradation.

**Response:** On page 2-64, the draft CCP/EA states only to “Explore the possibility of allowing the Friends group or a concessionaire to provide canoe/kayak rentals.” During the warmer months, many visitor inquiries (via phone, email, letters) about boat rentals and accessing the refuge by boat are received at the refuge headquarters office. There are very limited nearby canoe/kayak rental opportunities for refuge visitors. Allowing the Friends group or a concessionaire to provide this service, locally, would be a service to refuge visitors. Conditions under which the concession is operated would be stipulated via Special Use Permit and would be focused to protect wildlife and habitat and provide a high quality wildlife-oriented experience for the visitor.

A strategy, under objective 4.4, located on page 2-64 of the draft CCP/EA addresses the concern of motor boat use on the river and impacts on refuge wildlife and habitats.

**Comment:** One commenter recommended that we expand the boat launches, possibly with funding from the Vermont Department of Fish and Wildlife.

**Response:** The refuge staff relies heavily on volunteer help for all aspects of refuge management. Additional staff is needed to effectively maintain any expansion or enhancement to any facility, program, or activity on the refuge. The draft CCP/EA calls for the hiring of a maintenance worker to further improve and maintain refuge facilities and access areas. Contingent on the hiring of an additional maintenance worker, we will consider expanding the boat launches, which will also need to include a determination that there is a demonstrated need for expansion and that it does not conflict with the refuge purpose or management goals. If a decision is made to expand a boat launch or launches, we will explore funding support through the Vermont Department of Fish and Wildlife.

**Comment:** One commenter recommended that we open the Mac’s Bend launch ramp earlier in the summer or for the beginning of walleye season as well as the first weekend or two of bass season in June.

**Response:** A strategy, under Goal 4 in the draft CCP/EA, addresses this. Contingent on the installation of an electronic gate to allow entrance from dawn to dusk, the strategy calls to expand public access to Mac’s Bend from April to December (currently open September–December). Current management also opens the Mac’s Bend launch ramp for the beginning of walleye season and the Lake Champlain International Fishing derby; events that may exceed the capacity of the Louie’s Landing parking area.

**Comment:** On Page 2-60 of the draft CCP/EA you state that you wish to ensure “at least 75 percent of anglers have a positive experience.” Elsewhere you state a higher percentage of 90 for hunters. Why the difference, where do these percentages come from?

**Response:** We evaluated both hunting and fishing programs at the refuge using our professional judgment and any surveys or reports from users that could help us evaluate the existing programs and the degree to which we could make improvements. We determined that our hunting programs already score relatively high in providing positive experiences, but that we can do better to the

point where we can give MOST of our hunters a good experience. We can provide plentiful hunting opportunities, impose necessary but reasonable regulations, take steps to prevent putting too much pressure on the resource, reduce conflicts and competition between hunters, and so forth. With fishing, we already score high but not as highly as with hunting. This is the case, at least in part, because we must close portions of the shoreline of the refuge and areas around or near sensitive nesting sites to fishing in order to protect nesting migratory birds, and in some cases, threatened or endangered species. Unfortunately, not all anglers support these closures and are consequently unhappy with this management action. Likewise, while we can continue to improve our fishing program, we will also continue to protect nesting areas and therefore will continue to make some anglers unhappy and will accordingly be unable to achieve the level of satisfaction we can with hunting where these conflicts do not exist. Thus fishing was assigned a lower goal of only 75%.

**Comment:** One commenter recommended that we create a launch for canoes and kayaks, possibly at the Mac's Bend building, including mowing around the building and clearing the river bank more for easier access.

**Response:** Visitors are currently allowed to launch canoes from this area when the Mac's Bend Road gate is open (September–December). Enhancements to this area are contingent upon the hiring of an additional maintenance worker to further improve and maintain refuge facilities and access areas, and a determination that this action would be compatible with the purposes for which the refuge was established. A strategy, under objective 4.4, recommends that a new canoe/kayak access point be created at the Casey pull-off when Rt. 78 is realigned.

**Comment:** One commenter opposes any plan that would further restrict or control/limit hunting on any land now open to hunting.

**Response:** Strategies, under objective 4.2, on page 2-60 of the draft CCP/EA would further expand the hunt program, not restrict or control/limit hunting on the refuge.

The only proposal to restrict or limit existing hunting concerns deer hunting on the delta portions of the refuge during archery, regular or muzzleloader deer seasons. This area of the refuge is essentially a long and narrow strip of land surrounded by water. We have had numerous conflicts with and between hunters in these areas. Some hunters prefer to establish tree stands or ground blinds, which are currently authorized with permission of the refuge manager. Unfortunately, when this happens hunters become territorial and proprietary toward the area around their blind and this causes intense conflicts with other hunters. Hunters also have developed the practice, especially during youth season and during muzzleloader season, of organizing themselves into groups where some of the hunters sweep through an area in an attempt to drive deer to hunters waiting "on stand" ahead of them. This can quite effectively chase the deer out of these narrow areas and certainly disrupts the hunt of any other hunters not part of the group who are hunting by stillhunting or stand hunting. It is our policy to provide safe, enjoyable, and quality hunting and fishing experiences. When that is not occurring, as is the case as stated above, we will take action to remedy the situation. Thus we are proposing to develop a different type of hunt, a more controlled hunt that will result in a more positive experience for those who participate. That may very well mean we need to limit the number of hunters, restrict the hunting methods, and so forth. We have not determined the details of what we will do yet, as explained in the draft CCP/EA, but will seek assistance from the public in determining that.

**Comment:** One commenter expressed strong opposition to hunting. This commenter is opposed to hunting; thinks it is too expensive a program for the refuge; states that it is dangerous to visitors and wildlife; opposes opening new areas for hunting; and finds it not compatible with any other use of the refuge.

**Response:** Hunting is a priority public use and area of emphasis on the refuge. The National Wildlife Refuge System Improvement Act of 1997 lists hunting as one of six priority, wildlife-dependent public uses to receive enhanced and preferential consideration in refuge planning and management. In addition to hunting, other priority uses include fishing, wildlife observation and photography, environmental education and interpretation. Our mandate is to provide high-quality opportunities for these priority uses where they are compatible with respective refuge purposes, goals, and other management priorities.

Regardless of individual opinions about the appropriateness of hunting on the refuge, the Refuge Improvement Act requires that we give preferential consideration to the six priority, wildlife-dependent uses. It may be especially significant to you that in order to open the refuge to additional hunting opportunities, Federal regulations would need to be changed and an additional public comment period would occur in which you could express your comments. In addition, changes would be made to the Hunt Management Plan. Approval of the CCP allows us to go to that next step.

There are areas on the refuge where no hunting is allowed, such as the impoundments. In other areas, we have restricted hunting because of established safety zones. State law provides that a property owner may establish a 500 foot zone around any occupied dwelling. Hunting, whether by gun or bow, is not allowed in this area. Safety zones have been established around the Visitor Center and the Maquam Creek/Black Creek nature trails. In addition, refuge visitors are advised of areas open to hunting and trailheads are posted with advisories and closures as noted in the draft CCP/EA on page 2-55.

We strive to achieve balance between consumptive and non-consumptive uses on the refuge. Our experience shows that many areas can safely support both hunting and non-consumptive uses, such as wildlife observation, at the same time.

**Comment:** One commenter expressed strong opposition to trapping. This commenter is opposed to any trapping; states that children can be trapped and killed; feels that beaver and muskrat should never be killed since they are part of the ecological scheme of life; takes exception with modern trapping practices; and discounts the guidance on trapping offered by the International Association of Fish and Wildlife Agencies.

**Response:** We consider trapping or furbearer management a refuge management economic activity. Furbearer management is not a priority public use. Furbearer management at the refuge will continue to occur to support our mission to manage for migratory birds. The furbearers managed include species that prey upon migratory birds, their eggs or nestlings, or species that either impede water management for the benefit of migratory birds by damming waterways or by damaging dikes through burrowing and tunneling that leads to leaks or catastrophic failure.

We manage furbearers as part of the total environment of the refuge. The habits of muskrats and beavers are beneficial for waterfowl habitats by creating and maintaining nesting, brood rearing, feeding and loafing areas. However, muskrats and beavers may also create negative impacts when their populations grow unchecked. Muskrat “eat-outs” of waterfowl food and cover plants, bank

dens tunneled into refuge dikes, beaver girdling of valuable mast-producing trees, and new dams that back water onto adjacent private properties are not desirable. Population control is needed in such situations. These species also may threaten dams, dikes, and water control structures supporting refuge waterfowl habitat. Burrowing or tunneling into dams and dikes causes them to leak or fail, while plugging water control structures with woody debris and mud can render them inoperable.

Furbearer management on the refuge is a useful tool in maintaining balance between furbearers and habitat, safeguarding refuge infrastructure, and preventing the spread of disease. High populations of predators can decrease the nesting success of ground-nesting migratory birds, thus compromising one purpose of the refuge. The furbearer management program on the refuge has no appreciable negative impacts on furbearer populations.

Furbearer management contributes to the purposes of the refuge and the mission of the Refuge system by maintaining the vigor and health of furbearer populations and safeguarding the refuge infrastructure critical to habitat for scores of fish and wildlife species.

Trapping certain furbearers will help facilitate habitat management for migratory birds, and reduce predation on those birds and their nests. Furbearer management on the refuge contributes to, and does not materially interfere with or detract from, the mission of the National Wildlife Refuge System and the purpose for which the refuge was established.

Visitors are not likely to come in contact with any traps on the refuge. Trapping occurs off refuge trails and within areas that are not otherwise open to the public.

**Comment:** One commenter disagrees with our assertion that “deer are known to be tolerant of the noise produced by snowmobiles and are not seriously effected by the physical impacts (snow compaction) of snowmobiles,” stating that refuge deer must be statues or drugged to have no reaction.

**Response:** Snowmobiling has been determined to be an inappropriate use and will not be allowed on the refuge; therefore, the compatibility determination will be removed from the final plan. It was erroneously included in the draft. Your points are therefore moot and will not be addressed here.

**Comment:** One commenter recommends that we discontinue commercial minnow trapping.

**Response:** The refuge does not regulate commercial minnow trapping. A compatibility determination in Appendix B, page B-73 finds “access via refuge lands or facilities for minnow collecting” to be compatible with refuge purposes. Allowing access for commercial bait collecting to occur in the vicinity of the refuge contributes to, and does not materially interfere with or detract from, the mission of the National Wildlife Refuge System and the purposes for which the refuge was established. Note that the actual minnow collecting occurs outside the refuge boundary or within the Missisquoi River, its branches or tributaries, which are not currently under the jurisdiction of the Service.

**Comment:** One commenter states that hunters spread rabies by moving raccoons from state to state for hunting. Our account of how rabies is spread has left out the hunter involvement and our account should be updated and made truthful.



**Response:** It is possible that hunters spread rabies by moving raccoons from Florida to West Virginia as this source, located on the internet at <http://www.state.nj.us/health/cd/rabies.htm>, describes:

In 1977, rabid raccoons were first detected in West Virginia. It is believed that rabies was present in raccoons imported from Florida into West Virginia by hunters in the 1970's. The disease then spread to other raccoons after they were released. Once raccoon rabies was established in West Virginia and Virginia, it spread at a rate of approximately 25 to 50 miles per year into Maryland, Washington, D.C., Delaware, and Pennsylvania. This rabies epizootic spread into New Jersey through Warren and Hunterdon counties in October 1989. The raccoon rabies epizootic now extends throughout New England and as far west as Ohio, and south into North Carolina. (Note: an epizootic is a term used to denote an epidemic of disease in an animal population).

The Compatibility Determination in Appendix B on page B-107 will be updated to include this language.

**Comment:** If migratory bird hunting boundaries are being expanded, would the expansion be for fishermen too?

**Response:** Not necessarily. Waterfowl hunting only occurs in the fall, after nesting season. Some fishing occurs during nesting season. These sensitive habitats need to be protected and closed to entry in the spring. In the fall, after the nesting season, we are able to open these same habitats to hunters.

**Comment:** One hunter recommended that we build stake blinds at Long Marsh 1, 2, 3 and Metcalfe 8,9,10, and build walkways to those blinds for older hunters. He also observed that dogs need a place to get out of the muck. This commenter stated that volunteers would help do this.

**Response:** Contingent on staffing, funding, and an evaluation that this action is both appropriate and compatible, the refuge would work with volunteers to build these stake blinds and walkways for senior hunters. We have however, considered this recommendation in the past, and have not determined a way to do this that is: reasonable in expense, that will not negatively impact valuable nesting habitat for migratory birds, including endangered species and species of special interest. These structures would also need to survive the annual freezing, thawing, ice scouring, and flooding of these marsh areas. This may just simply be too much expense, effort, and annual maintenance for the relatively little use we would be able to establish there.

**Comment:** One commenter recommended that we open the area "in back of the old headquarters" to deer hunting; allowing that this would be a perfect spot for senior or handicapped hunters.

**Response:** We are not sure which area you are referring to, nevertheless we will take this comment into consideration when we address the proposal to expand the deer hunting program and provide additional deer hunting opportunities for Junior and Senior hunters.

**Comment:** One commenter recommended that we change the sign-in time for reserved waterfowl hunting blinds from 7am to one hour before shooting time to reduce the number of blinds that go unused.

**Response:** We understand your objective in making this comment to be greater utilization of blind sites. You are correct that a number of blinds go unused

every year because the hunters simply do not show for their assigned site. Most of these blind sites are awarded via lottery drawing, and the successful hunter must then pay a \$10 fee for the privileged use of the blind prior to the day of use. Interestingly, we received a comment from another hunter who appreciates this system in part because he does not have to worry about having a spot to hunt when he arrives at the refuge, and he does not have to arrive by a “deadline” to have a spot to hunt. We have heard similar comments from other hunters over the years through our routine contacts with them.

We have a system already in place to increase utilization of blind sites. If a hunter is drawn for a site, pays for it, and then determines that he cannot complete the hunt, he is encouraged to notify refuge headquarters where we maintain a “stand-by” list and will try to fill that blind with the next person in line. This system works some of the time, but not all of the time. We do not feel that the number of unused blinds is unacceptable at this point, nor do we see a greater increase of use through implementation of your proposal versus the current system. We do not feel it would be fair to a hunter who applies to the lottery, is successfully drawn, sends us the blind fee (usually on a very short notice), then loses his site because he is running a few minutes late.

**Comment:** A commenter recommended that the former Clark Marsh be opened to controlled hunting, youth hunting, or both at some time.

**Response:** When this property was purchased, there was a legal restriction attached to the deed that allowed exclusive hunting use of the property by the former owner and his guests for a period of years ending in November 2003 and further dictated that we could not open this property to public hunting until November 26, 2028. It is likely the refuge will consider opening the area to hunting at that time.

**Comment:** One commenter asked if migratory bird hunting boundaries are being expanded or changed?

**Response:** Strategies, under objective 4.2 on page 2-60 of the draft CCP/EA address this question.

**Comment:** One commenter stated that he hunted waterfowl 12 times last season; including 3 times at Missisquoi. He considers those 3 hunts to be the best of all. He liked hunting in the controlled area because he didn’t have to worry about someone else being in his spot, he didn’t have to compete with others to get there early, the blinds are spaced and no one is going to encroach on him after he sets up, he always see birds, and it’s usually a good hunt. He allowed that the refuge program is the best controlled hunting program in the State.

**Response:** A lot of staff time and effort goes into this program and we appreciate the support. The refuge strives to provide a high-quality hunt on the refuge and will continue to make improvements to the program as needed.

**Comment:** One commenter asked that we not restrict bow hunting to one day per season by the new permit program.

**Response:** The strategy listed under Objective 4.2 that calls for a lottery permit system for deer hunting may not necessarily restrict bow hunting to one day per season. Details for the lottery system have not been worked out and the refuge will take this comment into consideration as these details are developed. The delta areas open to hunting, are generally long, narrow, or relatively small islands that cannot accommodate many hunters without affecting the natural movement

of wildlife and , therefore, decreasing the quality of the hunting experience and creating some level of competition among hunters. To resolve the problems associated with these hunting areas and to increase the quality of the hunt, the refuge will evaluate the effectiveness of a controlled hunt.

**Comment:** One commenter wants no lottery permit system implemented for deer hunting. He stated that he doesn't pay for something he can't get. He prefers operating on a first-come, first-served basis.

**Response:** If we establish a lottery permit system for deer hunting, the refuge very likely would not charge an application fee. By comparison, we do not charge an application fee for waterfowl hunting applications. A hunter would only pay a fee if selected during the lottery. The current first-come, first-served approach has resulted in conflicts between hunters; therefore, the refuge intends to develop a different system for hunting on the delta to alleviate hunter conflicts and to increase the quality of the hunt.

**Comment:** Relative to deer hunting, one commenter observed that to open closed areas such as Cranberry Pool or Burtons Pothole in December doesn't make sense with access only by the river. If the river is frozen you can't get there by boat. November would be better.

**Response:** Good point. However, the reason for not opening these areas in November is because migratory birds are still using these habitats as sanctuary areas and we wish to keep them disturbance free. As climatic conditions allow, the refuge will consider opening Burton's Pothole for late bow/muzzleloader season and will consider opening Cranberry Pool for juniors and disabled big game hunters for late (December) bow season.

**Comment:** Many comments were received in support of keeping the refuge open to hunting.

**Response:** In the Northeast Region of the U.S. Fish and Wildlife Service, hunting has been identified as a priority Area of Emphasis at Missisquoi National Wildlife Refuge. Hunting is emphasized and supported throughout the CCP in terms of the six wildlife-dependent public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation) identified in the Refuge Improvement Act. Much of the refuge is open to upland game and deer hunting and in accordance with the Migratory Bird Hunting and Conservation Stamp Act, less than 40 percent of the refuge is open for hunting migratory birds. The draft CCP/EA calls for keeping the refuge open for hunting. Strategies, under Objective 4.2, on page 2-60 include expanding opportunities for hunters, enhancing and improving the refuge hunt program.

## **Administrative/ Planning/ General Management**

**Comment:** Will there be any construction or changing of the road that runs through the refuge (State Route 78)? This is such a beautiful stretch of road as it is—I question the value of the improvements—a wider road, moved away from the river upon which people can speed more, and upon which we need to spend big money for wildlife crossings.

**Response:** Please refer to Appendix G. Vermont Agency of Transportation Study of Route 78 for details concerning the work of a group of stakeholders, including the Refuge Manager, relative to this project. The stakeholders made recommendations to the Vermont Agency of Transportation (VTrans) relative to a roadway configuration that best integrated environmental, public safety, economic, and cultural preservation interests. Refuge involvement in the project has focused especially on avoiding or minimizing impacts to natural resources and refuge operations. At this time, neither a timetable nor funding is available

to accomplish the project. As indicated in the study, “the anticipated next steps have been slow in coming and little additional work has been completed on the project. It is anticipated that as funding for the project is identified, the planning effort and permit application will resume.”

Key to the continuation of the process to rebuild this section of roadway between Swanton and the Swanton-Alburgh Bridge is public involvement. You will have opportunities to express your opinions to VTrans when they ask for comment.

We will also prepare a right-of-way as VTrans either expands the width of the roadway in certain sections or moves the centerline of the roadway in other sections away from sensitive natural resources. This also moves the right-of-way now associated with the roadway to correspond with the new roadway. Part of the process of preparing a new right-of-way in exchange for the old right-of-way is preparing a compatibility determination and seeking public comment.

**Comment:** There were numerous comments about the funding needed to implement the CCP, many of them from one commenter. These comments advise that we need to develop detailed costs and a detailed budget for the plan in order to battle for dollars, apply for grants or contributions from partners, and determine priorities.

**Response:** It is beyond the scope of this CCP to outline and detail the complexities of the Federal funding process. However, generally stated, funding for Missisquoi National Wildlife Refuge is allocated annually by Regional Managers and the Regional Director charged with overseeing operations on all national wildlife refuges and other program areas in the Northeast Region of the Fish & Wildlife Service (Service). Regional funding allocations for refuges are determined by the Service’s Director under the advice of the Chief of the National Wildlife Refuge System (Assistant Director) in Washington, DC. The Director oversees the allocation of funds to the Regions; including refuges and all other program areas of the Service in that Region, in accordance with the annual Department of the Interior budget appropriation authorized by the U.S. Congress. Refuge Managers and other Service managers and administrators are prohibited by law from lobbying for funds. Likewise, we do not seek nor encourage Congress to earmark funds for specific refuges or for specific purposes. We would prefer, if we had a choice, to see efforts by the public and Congress focus on efforts to improve funding for the entire National Wildlife Refuge System.

Completion of the Comprehensive Conservation Plan for a refuge is viewed as a very positive step and accomplishment, one that will provide strong justification for funding requests. However, it is simply not realistic to anticipate that, upon completion of the CCP, all proposals presented in the CCP will be fully funded. The approved CCP stands as a strong justification for funding requests subsequently developed by the Refuge Manager to present to Regional Managers. These requests will be based on factors such as the anticipated availability of funding, funding initiatives, the operational needs of the refuge, which may in part be influenced by environmental conditions or factors, existing and near term staffing levels, and so forth.

**Comment:** Since the federal budget is unlikely to go up much in the future, you may want to think about going to the State of Vermont for help since the Refuge is valuable for the State.

**Response:** There is no doubt the State recognizes the value of the Refuge within its borders. We have a longstanding, strong, and beneficial partnership with



many state agencies, most notably the Department of Fish & Wildlife. We benefit from those partnerships through the sharing, to varying extents, of personnel and equipment. There are many examples of how the State helps in our refuge management efforts, such as: assignment of the State Waterfowl Team Leader to the refuge CCP core planning team; funding and assistance provided to support the annual waterfowl banding effort; providing many hours and days of law enforcement patrol of the refuge, and on and on. They definitely contribute to the job of refuge management. Yet, while these sorts of mutually beneficial projects are the norm, it is very unlikely that the State would be willing or able to provide funding directly to the Refuge. The State Department of Fish & Wildlife (Department) has its own funding challenges which do not put it in a position to provide funds to the Refuge. It is also significant that a portion of the funding for the Department is derived from federal funds, such as funds collected as excise tax on the sale of hunting and fishing supplies and equipment. Those federal funds allocated to the state can not be reallocated to the Refuge, a federal entity. Similarly, the Refuge can not compete for grants that are based on federal sources of funding.

It is also noteworthy that it is illegal for the Fish & Wildlife Service to augment its appropriations with funds from non-federal sources without specific Congressional authorization to do so, and, while the National Wildlife Refuge System Improvement Act and the Fish and Wildlife Coordination Act allow the Secretary of the Interior to accept donations for Refuges, the Service nonetheless doesn't generally go about fund-raising.

**Comment:** The Refuge needs to be a check-off on the Federal Income Tax form—we need an easy way for the public to make tax-deductible contributions.

**Response:** We appreciate the support behind the idea.

**Comment:** The new Refuge headquarters is so new that people are just learning of it and are just slowly starting to come out. The more people that come out, the more public support the Refuge will get. Need to get the word out. You may just need a little more time.

**Response:** We agree. We regularly provide news releases about refuge activities and management programs to the local papers who are extremely supportive of the refuge and print them for us. We are proposing no less than nine strategies under Goal 3 and its Outreach objective to further increase awareness about the refuge, its resources, and its wildlife-oriented public uses. These strategies include: posting events at rest stops and welcome centers, maintaining and enhancing our website, developing a portable, traveling exhibit, installing a short range AM radio station for motorists near the refuge, and working more with local businesses and landowners.

**Comment:** On page 3-10 of the draft CCP/EA, you need to explain “GS” and titles.

**Response:** GS is an acronym for “General Schedule.” This is a federal civil service pay scale. WG is an acronym for “Wage Grade” which is also a federal civil service pay scale for employees in certain maintenance or trade jobs. In general, the higher the WG number, the higher the pay. Pay may vary from locality to locality in the U.S. as adjustments are made for costs of living. Detailed title and job information can be found at the following link: <http://www.fws.gov/hr/HR/employmentstaffing.htm>

**Comment:** On page 3-22 i of the draft CCP/EA n the section on Partnerships you talk about the Friends of Missisquoi National Wildlife Refuge, Inc. and

it purpose. I recommend that you replace much of that text with Article II, Purposes of the Friends By-Laws, which is more descriptive.

**Response:** Text changed.

**Comment:** I like the idea of a new biological technician for field work.

**Response:** We agree. A second biological professional on the refuge staff would greatly facilitate and advance our refuge management capabilities and potential.

**Comment:** I don't like the idea of a Park Ranger for law enforcement and regulation but I do like the idea of a Park Ranger for recreational activities.

**Response:** The Service uses the position title of Refuge Law Enforcement Officer for public safety and law enforcement positions. It uses the title Park Ranger for visitor services professionals who focus on interpretation, outreach, environmental education, and wildlife-oriented recreation. The positions are closely related in that the Park Ranger can play a very significant preventive law enforcement role while the Refuge Law Enforcement Officer can reinforce that but also address those who fail to voluntarily comply with refuge regulations. Both positions are important to the refuge.

Hiring a second Park Ranger would give a tremendous boost to our visitor services program and allow us to more fully utilize our new facilities for orientation, interpretation, and environmental education, and increase our ability for outreach, especially to local schools.

A greater law enforcement presence is also needed, however. After several years with no law enforcement personnel, we gained some assistance when a Zone Refuge Law Enforcement Officer was stationed here in September 2006. That officer has been a great help, but the amount of time he can dedicate to law enforcement work specifically at Missisquoi is limited to between 8 and 20% of his time. We have a need for someone to be here much more than that, especially in the non-frozen months of the year when our public use is at its highest level. With the need for increased vigilance at the international border, the heightened threat to our Nation's security, and increases in drug trafficking and alien smuggling we can easily justify more law enforcement patrol and coordination.

**Comment:** Hiring staff should be top priority to allow gradual implementation of the other alternative B strategies. Expanding staffing capability can only serve to enhance important traditional roles in support of Lake Champlain preservation and protection efforts.

**Response:** We agree conceptually, however, hiring additional staff is not likely to be imminent at this refuge. Due to significant funding shortfalls experienced in fiscal year 2007 and similar shortages anticipated for fiscal year 2008, a strategic downsizing plan has been developed and implemented on refuges in the Northeast Region to reduce the number of staff region wide. The goal of Phase 1 of the plan is to reduce the number of refuge staff on field stations by 24. The goal of Phase 2, which was implemented in January 2007, is to reduce the number of refuge staff in Regional positions by 20 more. To date, those goals have not been fully met, but progress has been made and the effort continues. At the same time, Regional Managers are trying to increase the management capability and flexibility of refuges by increasing the percentage of available funding that is discretionary and available for projects and other on-the-ground work while reducing the amount consumed by salaries.

Several staffing changes have been identified at Missisquoi as part of this strategic downsizing. We are identified to lose the Assistant Refuge Manager position but that has not occurred yet. The duties of our Administrative Officer have been expanded to include administrative duties for the Lake Umbagog NWR with the possibility of additional duties being added for the Nulhegan Basin NWR. The Wildlife Biologist position made vacant by the retirement of the incumbent was filled in September 2006.

Should better than anticipated funding be made available for the National Wildlife Refuge System in fiscal year 2008, the Northeast Region has proposed that refuges continue to move forward with the implementation of the strategic downsizing plan and that any additional funding be applied to increase management capability. Remaining staff will focus on priority projects and utilize increased flexible funding to help do that. The flexible funding may be used to complete projects by purchasing supplies and materials, renting equipment, establishing service or construction contracts, or through employment of seasonal workers or interns.

**Comment:** Get maintenance staff away from janitorial work; pay somebody else to do it.

**Response:** We agree. Fiscal year 2007 funding was not sufficient to do so, however. If sufficient funds are available in the future we will continue to give this consideration, as we do every year.

**Comment:** Don't allow Abenaki's to be involved in refuge management decisions, treat them the same as the public.

**Response:** The Western Abenaki Indians, some of whom reside in Swanton, are not a federally recognized tribe, but qualify under Section 106 of the Archaeological Resources Protection Act as a routinely "interested party" in cultural resource matters on Federal lands. Therefore, we will continue to recognize the interests, opinions, and comments of the Tribe. We also will consider their involvement in refuge activities and actions as we do any citizen of the United States without regard to race, color, religion, national origin, sex, age, sexual orientation, or disability. We believe it is reasonable to expect the Tribe will have an interest in refuge management activities that may impact cultural resources that we are obligated to protect. We welcome their interest and assistance in doing so and believe they can play a key role in helping us accomplish Goal 5 to preserve the cultural and historical resources on the Refuge for current and future generations and to sustain an appreciation of the past.

**Comment:** Plan should emphasize vision for the future and what can practically be done in the short term.

**Response:** One of the very first steps the planning team took as it started to develop this CCP was to develop a "Vision Statement." That statement was presented during public scoping meetings and in newsletters informing the public of the planning effort and status, and was revised based on early comments. That vision statement is included in Chapter 1 of the draft CCP/EA and served as the basis for development of the plan.

As for emphasizing what can practically be done in the short term, you will note that in Chapter 2 of the draft CCP/EA we identify strategies for each goal as strategies that we either "Continue," accomplish "Within 5 years of CCP approval," or accomplish "Within 5 to 10 years of CCP approval." That was our attempt to identify general or relative timeframes for accomplishing strategies

developed in the plan. The practicality of accomplishing those strategies is very dependent on funding, staffing, and environmental considerations and is therefore, of necessity, determined annually by the refuge manager.

**Comment:** Determine jurisdictional authority on the river, the side channels, and the Lake Champlain shoreline of the refuge and include that in the CCP. In conjunction with that, develop a NEPA alternative that incorporates:

- Motor-free boating zones—Dead Creek, West Branch and main stem of the Missisquoi River, and Long Marsh Bay and Channel.
- Prohibit fishing derbies on and adjacent to the refuge, establish a ¼ mile buffer.
- Ban jet skis and public use of airboats.
- Otherwise 5mph speed limit enforced by US Coast Guard, Vermont Department of Fish and Wildlife, and the Refuge; and develop outreach.
- Phase out internal combustion/phase in electric motor only.
- Work with US Coast Guard to impose no wake buffer adjacent to the refuge on Lake Champlain.
- Wilderness area recommendations and a plan to manage much of refuge for wilderness values.
- Recommend Wild, Scenic, and Recreational status for river at refuge.

**Response:** The issue regarding the jurisdictional authority of the Service on the Missisquoi River, side channels, and the Lake Champlain shoreline of the refuge is a complex issue without a simple and quick answer. We chose to identify this as an important issue that needs to be clarified but also decided to not delay completion of the CCP until that is accomplished. There are many more, and equally important, aspects of refuge management in need of planning guidance that are not contingent on this issue. Based on that approach, it was neither reasonable nor logical to develop a NEPA alternative for this Environmental Assessment that considered management actions contingent upon having total authority to determine public uses of the river. Our Regional Solicitor evaluated our draft CCP/EA for NEPA compliance and endorsed this approach.

Therefore, some refuge management considerations, including some recommendations you are making, can not effectively be made until the limits of jurisdiction and authority on the river and associated waters are fully known. If it is eventually determined that the Service has whole or partial authority to control recreational uses of the river, we will revisit the issues and recommendations you have made and seek wide public and partner involvement to determine our management actions.

We appreciate the commenter's support of wilderness areas and wilderness values. As evidenced by the Wilderness Review conducted as part of the development of this draft CCP/EA, we have considered the entire refuge for opportunities to establish Federally designated Wilderness Areas, and conclude that no portion of the refuge would be appropriate for wilderness designation. The Service, however, recognizes the unique and special qualities of the area, and agrees that management should focus as much as possible on providing characteristics associated with wilderness while still managing the area for the



purposes of migratory birds and wildlife-oriented priority public uses. We believe we can provide and encourage, through careful management of our programs allowing public access to the refuge in this area and elsewhere, a sense and appreciation in our visitors that they are in a special place and are privileged to be there.

The following discussion regarding Wild and Scenic River study is included in Appendix A of the draft CCP/EA: In 1982, a total of 31 miles of the Missisquoi River were listed in the Nationwide Rivers Inventory (NWI), a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more “outstandingly remarkable” natural or cultural values judged to be of more than local or regional significance. A segment of the inventoried Missisquoi River flows through the refuge boundary. Neither current management actions, nor actions which we propose under Alternative B, would affect the eligibility of the river segment for Wild and Scenic River designation. The river segment that flows within the boundary of the refuge is a small portion of the Missisquoi River that is identified in the NWI, and there is no real break in the river’s character at the Refuge boundary. We believe that the entire 31 mile portion of the Missisquoi River that is listed in the review should be studied in its entirety, and with the full participation and involvement of our Federal, State, local and nongovernmental partners. As such, in this CCP we did not conduct a study of the river segment on the refuge independently; rather, we are recommending it be part of a larger study of the entire river as identified in the NWI. That is the course we intend to follow with regard to a study of the river for special designation.

**Comment:** Work with neighboring farms to provide info and financial resources to delay mowing suitable open fields.

**Response:** We certainly have information available to convey the values of late harvest to nesting migratory birds, however, we do not have the financial resources. Nor, to date, we have identified any non-financial motivation that would cause neighboring farmers to delay mowing voluntarily. As an alternative, occasionally we are able to purchase adjacent lands from farmers that we can then manage to benefit nesting migratory birds. Also, occasionally, we are able to work with a neighbor who has suitable land, does not manage their lands as farmlands, and is amenable to managing for wildlife.

We will, however, continue to seek motivations and incentives for farmers. We will also continue to work with our partners to this end, including the Natural Resource Conservation Service and the Partners for Fish and Wildlife coordinator.

**Comment:** Fully develop the option on page 2-2 of the draft CCP/EA, “Primary focus on biological programs with a de-emphasis on public use” and include in final CCP.

**Response:** As we stated at the beginning of Chapter 2, we fully developed only two alternatives for this draft CCP/EA for this reason:

The difference between what we are doing now (alternative A) and what we are proposing to do (alternative B) addresses all of the refuge management issues and public concerns that surfaced in our public scoping process. We based both alternatives on statutory and policy requirements, including the refuge purpose and management concerns or issues raised by conservation partners, refuge staff, and the public. Each alternative approaches those issues differently. Each

presents, in almost the same order, refuge goals, objectives for achieving those goals, and strategies for accomplishing those objectives.

Further, we state, relative to the alternative—Primary focus on biological programs with a de-emphasis on public use: This alternative would have focused refuge staff and funding primarily on biological programs and management for wildlife, but would have reduced public use greatly from its present level. It would have increased research, monitoring, and the protection of wildlife populations from disturbance by public use. However, the well-designed public use program in alternative B already raises public awareness of and support for the refuge biological program. Therefore, we did not fully develop this alternative in detail.

We had started drafting this alternative as a third alternative as we developed the CCP, however, it became rapidly apparent to the planning team that this alternative was not developing to be significantly different than the preferred alternative. It is Service policy to involve the public in our refuge management decisions and further to provide wildlife-oriented recreational opportunities, focusing on the six priority public uses, as long as those uses are compatible with the purpose or purposes for which the refuge was established. It was strongly felt by the planning team that the Service has a long history at Missisquoi of providing wildlife-oriented public uses while successfully ensuring that those uses do not conflict with the refuge purpose of providing habitat and managing for migratory birds. The Service had taken major steps in recent years to improve its facilities to welcome and orient the public to the refuge, which we saw as a positive factor in continuing to provide high quality public use opportunities and helping to ensure that public uses continue to be compatible with refuge wildlife first purposes. It is also significant that we were able to address in the preferred alternative all of the issues brought to our attention during the public scoping sessions and via written feedback solicited at that time. The complexity and controversies associated with the issues identified in this Environmental Assessment are not so great as to necessitate development of an Environmental Impact Statement, nor do they warrant unnecessary development of alternatives that are not significantly different than the two developed in this case.

**Comment:** I am concerned about a very limited range of alternatives for in-depth agency assessment and public review.

**Response:** Please review our response to the preceding comment.

**Comment:** We request that the Service assess the implications of climate change in all alternatives, alternatives should account for climate change in management strategies and objectives.

**Response:** We agree that Global Climate Change is an issue with strong management implications on our national wildlife refuges. It will, in fact, have strong implications on the way in which we all live. It is also an issue about which we are only now just learning. Accordingly, the U.S. Fish and Wildlife Service and its many governmental and nongovernmental partners are initiating measures to discuss and understand these changes, not the least of which is to first identify and recognize climate-related changes.

While this issue has been under discussion for years by scientists, it has not captured the attention of the public until very recently. Interestingly, it was not identified as a planning issue during the scoping process for this CCP.

We do not wish to delay completion of this important planning document while awaiting an assessment of the impact of global climate change on Missisquoi

refuge's resources. This plan will be used by the refuge manager who will review it regularly for inaccuracies or significantly changing variables, including environmental changes. This will occur no less frequently than annually. The plan is more formally reviewed every 15 years.. As any new information become available, including climate change related information, it will be evaluated and its potential impacts to the refuge considered and acted upon if appropriate.

**Comment:** Provide more assistance to landowners for woodcock habitat management and wood duck box nesting programs.

**Response:** We shall continue to provide this “technical assistance” to landowners, with emphasis on those who wish to manage their privately-owned lands for woodcock, a species whose population in the northeast has been on a long, slow, and steady decline. We will also provide information to those who ask for assistance in providing nesting structures for wood ducks but will inform them of the importance of proper box maintenance and the Service's preference that they be left to utilize natural cavities when available.

**Comment:** Extend time to comment by another 30 days. Public needs more time since they all work.

**Response:** We believe the time allowed for the public comment period on this plan not only meets legal and policy requirements and guidelines but was adequate time for most to provide comment.

**Comment:** Page 3-18 of the draft CCP/EA should list the Lake Champlain Paddlers' Trail in addition to the Northern Forest Canoe Trail.

**Response:** Reference added.

**Comment:** Objective 3.1 [page 2-12 of the draft CCP/EA] should be amended to include users of the Lake Champlain Paddlers' Trail on the list of visitors.

**Response:** We will modify the text to refer to the Lake Champlain Paddlers' Trail on the list of visitors contained on page 2-47 of the draft, which is in the discussion of Goal 3 under Alternative B, the Preferred Alternative.

The text to be replaced is: “users of the Northern Forest Canoe Trail and the Lake Champlain Birding Trail, both of which pass through the refuge,”

The replacement text is: “users of the Northern Forest Canoe Trail, the Lake Champlain Paddlers' Trail, and the Lake Champlain Birding Trail, all of which pass through the refuge,” (see page 4-32 of this CCP)

**Comment:** Animal protection groups need to be drawn into planning for wildlife protection, rather than only calling in hunters.

**Response:** We were indiscriminate in our notice of the availability of this draft plan for review and comment.

**Comment:** What are you doing for fish? It is the “fish” and wildlife service, so doesn't that mean we are supposed to be doing something for fish?

**Response:** The purpose for which the Missisquoi National Wildlife Refuge was established in 1943, as stated on page I of the Highlights section of the draft CCP, is “for use as an inviolate sanctuary, or any other management purposes, for migratory birds.” The goals of the National Wildlife Refuge System as stated on pages 1-4 and 1-5 of the draft CCP/EA are to:

- Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered
- Perpetuate migratory bird, inter-jurisdictional fish, and marine mammal populations
- Conserve a diversity of fish, wildlife, and plants
- Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems
- Foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high quality, and compatible wildlife-dependent public uses including hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Missisquoi provides excellent spawning habitat for many of the fish species of Lake Champlain by its mere existence and protection. In the spring of the year when the delta is flooded, fish spawning activity on the delta is very apparent. In addition to the flooded habitat of the floodplain forest on the delta, protected waters of the refuge such as Cranberry Pool, Big Marsh Slough, Goose Bay Pool, Metcalfe Island Pothole, Charcoal Creek, Black Creek, and Maquam Creek also provide important spawning and nursery areas for fish. So, while it is not something we measure, it is certain that the refuge provides several thousand acres of habitat that produces a significant biomass of fish every year. Protection and management of the majority of the delta as a bottomland floodplain forest ensures that this will continue. The popularity of the refuge lakeshore areas with recreational anglers, and with amateur and professional tournament anglers is evidence of the value of this habitat to fish and recreational fishing. They fish here because of the fish produced and sustained on the refuge.

Wildlife that is dependent on fish, including fish-eating birds such as the osprey, the bald eagle, and the Great Blue Heron, thrive on the refuge. This is, in large part, due to the plentiful food supply. The fish on the refuge are a very important part of the ecosystem and, again, are present as a result, in part, of the protection and management of the floodplain forest and the waterfowl impoundments on the refuge.

Fishing is one of the six priority public uses of national wildlife refuges and is promoted at Missisquoi in those locations where it does not conflict with the purpose of the refuge. In 2007, we conducted the 28th Annual Fishing Derby for Kids in early June to help introduce our nation's youth to the sport, promote use of a renewable resource, and encourage family-oriented recreation in the outdoors. Again, these activities contribute to the management of fish and the sustenance of fish as a natural resource through public education and enlightenment about fisheries-related issues.

The Fish and Wildlife Service has many stations established across the country whose primary purposes are to address fisheries issues. One such office is the Lake Champlain Fish and Wildlife Resources Office in nearby Essex Junction, Vermont. Refuge staff works closely with that office and with State Fisheries partners on fisheries-related research or management projects in and around the refuge, or on specific fisheries matters for which they hold expertise. In recent years, these projects have included sampling the Missisquoi River for both Sturgeon adults and evidence of reproduction, sampling the Missisquoi River for



evidence of walleye reproduction, sampling the river for evidence of lamprey, and sampling in the vicinity of the refuge for alewives.

**Comment:** Rather than spend all of our time writing plans like this, you should have been out doing something. Why do all this planning if you have no money?

**Response:** Developing a CCP is required by the National Wildlife Refuge System Improvement Act of 1997. Chapter 1, Introduction of the CCP explains in detail why this plan has been prepared. The refuge continues to receive operational funding and will be able to accomplish many of the objectives of the plan regardless of whether additional funds are allocated. We are optimistic that funding will improve over the 15 year life of this plan so we may more fully implement the CCP.

**Comment:** All the talk about improving water quality is a joke. State agencies are not working together and there is no enforcement of violations by farmers.

**Response:** The issues associated with water quality are extremely important, and in fact are crucial to the health of people, wildlife, and the ecosystems of which all are a part. It is going to take a concerted, collaborative effort by many individuals, organizations, and agencies to effectively resolve those issues, and it is going to take time, money, and probably some big changes in the way we live. We believe that collaboration is the only way to proceed and that it will succeed.

**Comment:** I was not happy with the public meeting. You covered the same things I got in the mail so time at the meeting was wasted and could have been spent better.

**Response:** The format and agenda for the meeting were developed to lead participants through the process we followed to develop the plan, highlighted the goals of the plan, and provided time for questions, answers, and comments. We did not assume that participants read the plan prior to the meeting and felt it crucial to provide this basic understanding to them. We also recognized that we did not have enough time to list the many objectives and strategies proposed in the plan, much less discuss them, but we did provide them in tabular form. It was our purpose at the meeting to instill a level of understanding about the purpose for the plan and how we arrived at our proposals in order to generate discussion and send participants away with enough interest to review the details of the plan and provide thoughtful, constructive comments in writing.

**Comment:** You should be out there blasting potholes, planting wild rice, and raising wood ducks and mallards. Likewise, finish all dikes in Big Marsh Slough and Goose Bay Pool. You shouldn't hold back on duck work for fear of injuring plants, frogs, insects, clams, or whatever. An Environmental Assessment and related requirements are a joke.

**Response:** You stimulate memories of "the old days" when Refuge Managers managed as simply as you describe. We did those things to benefit habitats for waterfowl, often without regard for, and to the detriment of, other wildlife and plants. Perhaps because of that, those days are gone and we now must manage more responsibly, smarter, and in accordance with the many laws that have been passed to protect the wildlife and lands we manage. The science of wildlife and habitat management has also evolved and guides our management decisions to ensure that while doing good for one species or suite of species we are not harming others that may be equally important. Environmental Assessments, and in some cases Environmental Impact Statements, help us evaluate those cause

and effect relationships and are required pursuant to the National Environmental Policy Act for any federal action that may have an impact on the human environment. NEPA is the vehicle that enables you to participate in the process. In light of that, we believe the plan adequately and appropriately addresses and discusses habitat management actions and opportunities.

So, we have not blasted any potholes here for a long time for a number of reasons including the potential environmental impacts on other wildlife, the danger and need for either explosives training or the use of trained and certified explosives experts, and concerns about staff and public safety and the public's tolerance for blasting.

We see no need to plant more wild rice. Wild rice was planted here a long time ago and, except for high water years when it does not grow as well, we have an outstanding crop that grows in just about every suitable habitat on the refuge. In high water years, other wildlife food plants provide sustenance for migrating waterfowl.

We continue to have reasonable and healthy crops of both wood ducks and mallards, as well as many other species. While we may streamline our wood duck nesting box program to only those boxes that are productive and can be protected from predators, we do not intend to completely discontinue the program. It is our policy to provide and manage natural habitat for nesting, unless the availability of that is a limiting factor for a population that is not at objective level. Neither wood duck nor mallard populations in the Atlantic Flyway in recent years are showing any signs of poor reproduction or sustainability. We anticipate that wood ducks at Missisquoi will find suitable nesting cavities within the mature floodplain forest of the Missisquoi delta and will evaluate that. If the wood duck or mallard populations in the future become imperiled we will renew our efforts to facilitate their nesting at Missisquoi.

We have stated in our CCP that we are going to see if it is feasible and environmentally acceptable to finish the dikes, and we will do that, but you can be assured that we will take no action that does not adhere to Service policy or law. We fully support the National Environmental Policy Act and acknowledge our responsibility to evaluate the potential environmental impacts of our management actions.

**Comment:** Re: Pages B-51, B-65, B-79 of the draft CCP/EA; this is a very old citation, info from 1983 does not help plan for 2025.

**Response:** It is a standard and accepted practice to cite works that contribute to the general or specific body of knowledge, until or unless they are disproved. These are valid and germane references.

**Comment:** A number of commenters indicated support for land protection, land acquisition, and refuge expansion. They asked how to protect land without the expense of buying it and encouraged us to promote conservation of wildlife and habitat throughout the Missisquoi River watershed and the Lake Champlain Basin. One commenter indicated a preference for action versus study as recommended in the CCP.

**Response:** The main focus of Goal 6. Foster cooperative partnerships and actions to promote fish and wildlife conservation in the Lake Champlain Basin and Missisquoi River Watershed. is to collaborate on landscape-scale or watershed-scale projects that benefit the Lake Champlain Basin ecosystem and associated fish and wildlife. We will pursue acquisition of the remaining 8 parcels of land

(253 acres) within the existing approved acquisition boundary, as landowner interest and funding allow. We will also work with partners to conserve additional lands that improve resource protection and aid in fulfilling the mission and purpose of the refuge, particularly intact, fully functioning wetlands and associated riparian areas and lands that maintain and expand protection of large unfragmented blocks of upland habitat.

To acquire or protect additional lands outside the approved acquisition boundary of the refuge, we must first, by policy, complete a Conservation Proposal for consideration by the Director. If that is approved, we must then develop a Land Protection Plan. The Land Protection Plan will follow NEPA guidelines and involve landowners and conservation partners in its development. Once approved, that plan should give clear guidance on the land protection priorities and focus for the refuge. It will clear the way to pursue funding for acquisition from willing sellers or to pursue another level of protection from conservation-minded individuals or entities.

While the land protection focus of the Refuge is on lands in the vicinity of its current land holdings, the Refuge is part of a team of agencies, organizations, and individuals working collaboratively to protect important wildlife habitats in the Missisquoi River Watershed and the Lake Champlain Basin. This team is knowledgeable of the various options available for protection of a parcel of land and jointly considers which option or options may be most appropriate and effective for protection in any given case. These options include:

- Federal, State, conservation organization, or land trust fee title acquisition;
- the purchase or granting of conservation easements which are then held by either the Federal government, the State government, conservation organizations, land trusts, or a combination of those;
- or programs of the Federal or State government which, via contract or written agreement, provide incentives to private landowners to conserve or manage lands to benefit wildlife or habitats.

**Comment:** Page 3-9 of the draft CCP/EA describes parcels the Service is trying to acquire—can you show these parcels on a map so I can help further acquisition efforts?

**Response:** We appreciate your offer of assistance and will coordinate directly with you.

**Comment:** Map 1-3 shows “privately conserved lands.” Most are conserved through Vermont Land Trust, typically farming easements that simply prevent subdivision. Does it make sense to show them as conserved lands? Or clarify the type of conserved land? Refuges’ interest in conserved lands would be more conserving those lands that have intact habitat.

**Response:** One reason for including this map was to show the refuge and conserved lands relative to the greater landscape. Also, on page 3-9 of the draft CCP/EA we discuss the amount of conserved land in Swanton, relative to the amount of conserved land in other communities Statewide. The relatively high percentage of conserved lands in Swanton demonstrates a couple things: 1) it shows the commitment of the residents of Swanton and Franklin County to protect lands from development, in this case agricultural lands for continued agricultural use (as you point out), and 2) suggests a reason for the growing reluctance of the governing bodies of Swanton to conserve lands that may instead

be used for development. The latter is important to the Refuge in the sense that it may be increasingly difficult in the future to secure the support of the municipal governments to add land to the refuge if that land is developable.

You are correct that conserved farm lands are generally not as productive for wildlife as lands managed specifically for wildlife, but they are much more productive for wildlife than those same lands would be if they were developed. Arguably, farm lands make significant contributions to wildlife, as evidenced by the numbers of migratory birds that feed in farm fields in Swanton, the increase in the number of turkeys seen in the area, the number of deer that thrive on farmlands, etc.

**Comment:** A number of commenters support and agree with the proposal to remove Shad Island from consideration for Wilderness designation but encourage continued protection as a Research Natural Area.

**Response:** It is our intention to continue to manage Shad Island as a Research Natural Area.

**Comment:** Two organizations recommended protection and restoration of wilderness values on the refuge, especially areas north of Route 78, and further recommend that the refuge be managed for wilderness values as much as possible.

**Response:** We appreciate the commenter's support of wilderness areas and wilderness values. As evidenced by the Wilderness Review conducted as part of the development of this draft Comprehensive Conservation Plan and Environmental Assessment, we have considered the entire refuge for opportunities to establish Federally designated Wilderness Areas, and conclude that no portion of the refuge would be appropriate for wilderness designation. The Service, however, recognizes the unique and special qualities of the area, and agrees that management should focus as much as possible on providing characteristics associated with wilderness while still managing the area for the purposes of migratory birds and wildlife-oriented priority public uses. We believe we can provide and encourage, through careful management of our programs allowing public access to the refuge in this area and elsewhere, a sense and appreciation in our visitors that they are in a special place and are privileged to be there.

**Comment:** Is any part of the Refuge designated as Wilderness right now?

**Response:** No portion of the refuge has been designated as a Federal Wilderness Area.

**Comment:** Thoroughly evaluate Maquam Bog for restoring and protecting wilderness values.

**Response:** In order to complete a Wilderness Review of the refuge, as is required by policy when developing a CCP, we divided the Refuge into six separate blocks bordered by major roads or bodies of water that are not owned in fee title. We labeled these as Wilderness Inventory Areas. The 2,435 acre Maquam Bog was one of those blocks, or Wilderness Inventory Areas (WIA's). It was our conclusion that the Maquam Bog WIA did not meet the criteria for wilderness identified in the Wilderness Act based first on the size criterion, nor did it meet the exceptions for areas less than 5,000 contiguous acres. We do not believe, therefore, that



the Maquam Bog qualifies as a Wilderness Study Area or should be considered further for wilderness designation.

**Comment:** Two organizations recommend that we initiate a Wild, Scenic or Recreational River Study and include that in the CCP; providing a wider range of alternatives in accord with the National Environmental Policy Act.

**Response:** The following discussion is included in Appendix A of the draft CCP/EA: In 1982, a total of 31 miles of the Missisquoi River were listed in the Nationwide Rivers Inventory (NWI), a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more “outstandingly remarkable” natural or cultural values judged to be of more than local or regional significance. A segment of the inventoried Missisquoi River flows through the refuge boundary. Neither current management actions, nor actions which we propose under Alternative B, would affect the eligibility of the river segment for Wild and Scenic River designation. The river segment that flows within the boundary of the refuge is a small portion of the Missisquoi River that is identified in the NWI, and there is no real break in the river’s character at the Refuge boundary. We believe that the entire 31 mile portion of the Missisquoi River that is listed in the review should be studied in its entirety, and with the full participation and involvement of our Federal, State, local and nongovernmental partners. As such, in this CCP we did not conduct a study of the river segment on the refuge independently; rather, we are recommending it be part of a larger study of the entire river as identified in the NWI. That is the course we intend to follow with regard to a study of the river for special designation.

In our judgement, the two alternatives we have developed in this CCP comply with the NEPA guidelines for an Environmental Assessment. We don’t believe it would be appropriate to develop a third alternative focusing on the management of the refuge as a wild, scenic or recreational river.